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of Transportation  
**Federal Aviation  
Administration**

**AFS-600**

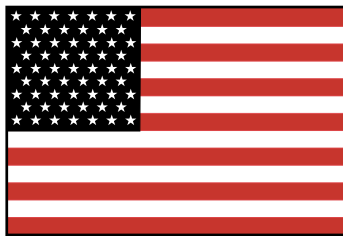
*Regulatory Support Division*

## ADVISORY CIRCULAR 43-16A

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# AVIATION MAINTENANCE ALERTS

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NUMBER  
283**



**FEBRUARY  
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**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
WASHINGTON, DC 20590**

**AVIATION MAINTENANCE ALERTS**

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The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience and thereby cooperate in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but which have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via Malfunction or Defect Reports. Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Designee Standardization Branch (AFS-640); P.O. Box 25082; Oklahoma City, OK 73125-5029.

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**AIRPLANES**

**AERONCA**

**Aeronca; Model 7AC; Champ; Engine Failure; ATA 7322**

During a flight, the pilot experienced a complete engine failure; however, he was able to land the aircraft safely.

A technician discovered sufficient fuel flow was being delivered to the carburetor. Still suspecting fuel starvation as the cause, he disassembled the carburetor and found a quantity of very fine dirt particles in the fuel strainer and float chamber. Also, the main air-bleed jet was almost completely obstructed by an unidentified "gummy-like" foreign substance.

The submitter believes the foreign substance obstructed the main air-bleed jet and caused the engine failure.

Part total time not reported.

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**Aeronca; Model 7CCM; Champ; Defective Wing Structure; ATA 5711**

During a scheduled inspection and compliance with Airworthiness Directive (AD) 2000-25-02, the inspector found structural wing cracks.

The left wing front spar was cracked at the inboard end and the right wing rear spar was cracked at the inboard end. The severity of the cracks allowed a .001-inch feeler gauge to be inserted approximately .125 inch into each of the cracks.

It is critical to flight safety to comply with the requirements of AD 2000-25-02 including the recurring-inspection requirements.

Part total time not reported.

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**BEECH****Beech; Model 36; Bonanza; Vacuum System Failure; ATA 3700**

The aircraft owner/pilot reported the vacuum system failed during flight. He made a safe landing and asked a maintenance shop to correct this defect.

A technician discovered the vacuum pump (Airborne P/N 242CW) drive shaft was sheared. After he installed a replacement vacuum pump, the system functioned properly.

While completing a maintenance record entry, the technician could find no entry indicating the serial number of the failed pump!

Part total time not known.

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**Beech; Model 58P; Baron; Wing Structure Defect; ATA 5730**

While conducting a scheduled inspection, the inspector discovered a crack in the wing skin.

The lower inboard leading-edge skin was cracked between the fuel tank drain-fitting hole and the rear edge of the skin. The 2-inch long crack appeared to originate at the aft edge of the skin and traveled forward to the fuel drain-fitting hole. The submitter reported finding this defect many times on like aircraft. He stated that some of these cracks terminate at the fuel drain-fitting hole and some travel beyond. This type of crack may be found on the left wing and/or the right wing.

The submitter speculated normal flexing of the skin material, age, and operational vibration caused these defects.

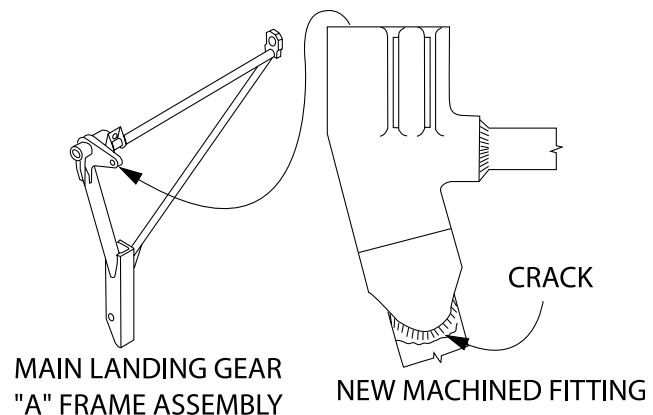
Part total time-7,165 hours.

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**Beech; Model 76; Duchess; Landing Gear Defect; ATA 3230**

While conducting an annual inspection, the inspector discovered the right main landing gear “A-frame” was cracked.

The crack traveled approximately half way around the “A-frame” tube circumference, and the assembly was in imminent danger of complete failure. The defect was in the same location discussed in Airworthiness Directive (AD) 97-06-10. This AD requires recurring inspections in this area until the original “A-frame” is replaced with the newly-designed assembly. (Refer to the illustration.) In accordance with this AD and Raytheon Service Bulletin 2361, the original “A-frame” had been replaced with a newly-designed “A-frame” assembly (P/N 105-810023-76). In this case, it was the newly-designed “A-frame” assembly that failed.



The submitter urged all technicians to inspect this area closely during scheduled inspections and maintenance.

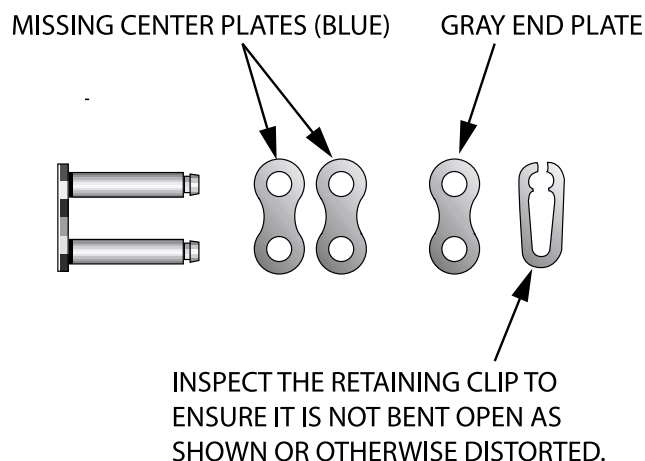
Part total time-4,724 hours.

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### Beech; Model C90; King Air; Defective Nose Landing Gear Linkage; ATA 3230

While complying with a 6-year inspection and maintenance requirement, the technician replaced the nose landing gear retraction duplex chain. An inspector discovered the duplex chain-connecting link (P/N 131378-25-2CL) was not installed correctly.

The inspector discovered the duplex chain connecting link center plates were missing. When the technician was asked about this problem, he stated the center plates were not furnished with the other parts. (Refer to the illustration.) After investigating further, the inspector contacted Beech, and discovered Beech had been experiencing "vendor problems" related to the duplex chain-connecting link. They contacted a number of parts suppliers and discovered that several "parts bags" were on the shelf and contained only three items instead of the required five.



The submitter stated, "The maintenance manual is not specific enough to inform a technician on how many pieces should be inserted into the assembly." At the time of this writing, it is unclear if this problem has been resolved. However, all maintenance personnel should take note of these circumstances and ensure proper installation of the nose gear duplex chain-connecting link assembly.

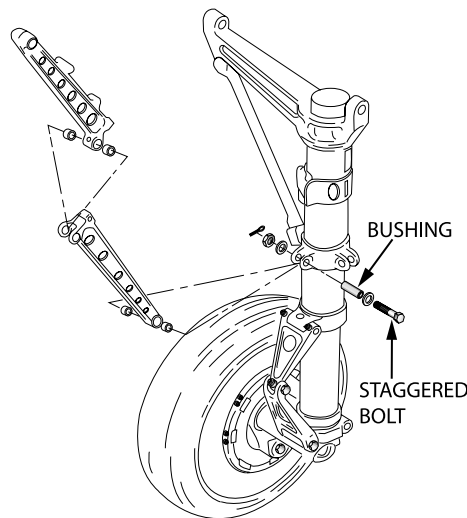
Part total time-0 hours.

### Beech; Model C90; King Air; Main Landing Gear Defect; ATA 3230

During a scheduled inspection, the technician discovered the right main landing gear drag-link bolt was defective.

The defective bolt (P/N NAS464P6-28/M) was installed at the lower end of the drag brace where it attaches to the main gear trunnion. (Refer to the illustration.) The drag link assembly was very stiff and the movement was restricted. The technician tried to remove the lower bolt and discovered it was very difficult to remove. Once the bolt was out, he noticed the bolt shank was "staggered" by approximately .020 inch. This finding indicates the bolt was subjected to excessively high shear loads.

The technician reviewed the aircraft maintenance records. The records indicated the drag link joints were disassembled, to replace the bushing, 561 operating hours prior to this finding. At that time, the bolt was in serviceable condition. He recommended placing the aircraft on jacks every 200 hours of operation and inspecting the drag brace joint components for condition and serviceability. Also, the defective bolt has been superseded by another bolt (P/N 130909B130).



Technicians should check the current parts manual when installing replacement parts.

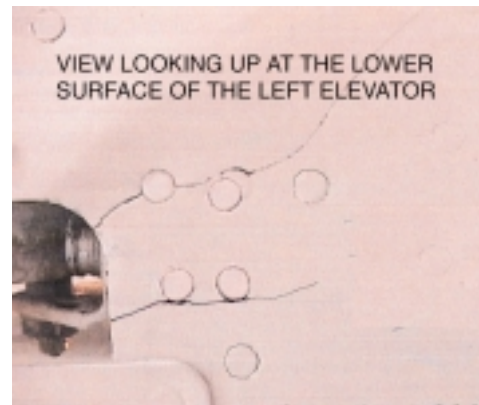
Part total time-unknown.

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**Beech; Model C90; King Air; Elevator Structural Defect; ATA 5520**

During a scheduled inspection, the inspector discovered two cracks on the elevator.

The left elevator lower skin (P/N 50-610000-432) was cracked at the outboard hinge point cutout. One skin crack traveled from the hinge cutout aft, through two rivet holes, and extended across the spar cap for a total distance of approximately 3 inches. The other skin crack was approximately 1.75 inch long and traveled from the hinge cutout, across the spar cap, and through two additional rivet holes. (Refer to the illustration.)



The submitter did not give the condition of the spar cap or other structures in this area. He recommended that all personnel involved with like aircraft be aware of these finding and give this area close attention at every opportunity.

Part total time-4,384 hours.

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**Beech; Model E90; King Air; Fuselage Structural Defect; ATA 5330**

During a scheduled inspection, the inspector discovered a crack in the fuselage skin.

The right lower skin (P/N 50-120156-82) center section was cracked between and beyond a double row of fasteners at a skin joint. This skin panel is located just aft of the main wing spar cap at Body Line (BL) 16.25. The skin panel was part of the cabin pressure vessel before the transition to the unpressurized wing.

The submitter speculated this defect may have been caused by a high number of pressurization and landing gear cycles and long exposure to operational vibrations.

Part total time-8,938 hours and 7,437-landing gear cycles.

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**Beech; Model 200; King Air; Suspected Landing Gear Defect; ATA 3260**

During a landing approach, the pilot selected the landing gear down, but the nose gear did not indicate it was in the “down” position. A ground observer notified the pilot that the nose gear appeared to be “down-and-locked,” and the pilot made a safe landing.

The technician discovered the green nose gear indicator lamp-socket lens was loose. After placing the aircraft on jacks, he conducted a landing gear operational test, and the landing gear functioned properly. He checked the landing gear rigging to ensure there were no other problems and approved the aircraft for return to service.

The submitter suggested that the manufacturer revise the Aircraft Flight Manual to include a reminder for the pilots. When an anomaly occurs, the pilots should switch the landing gear indicating lenses and verify that each light assembly is operable.

Part total time not reported.

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**Beech; Model 200; King Air; Loose Elevator Fasteners; ATA 5520**

While inspecting the aircraft, a technician discovered loose elevator attachment fasteners.

The rivets were used to attach the casting to the elevator torque tube. All the rivets were loose, "smoking," and in danger of complete failure. The fastener holes in the torque tube were elongated and worn oversized.

The submitter found a similar defect on another like aircraft and cautioned all maintenance personnel to be alert for this defect on other like aircraft. He did not offer a cause for this defect.

Part total time-5,012 hours.

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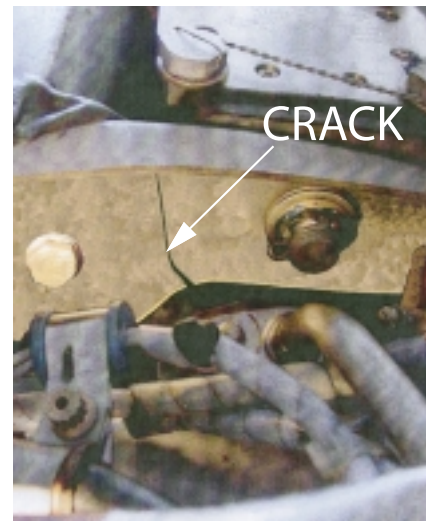
**Beech; Model 400A; Beechjet; Defective Engine Mount Assembly; ATA 7120**

During a scheduled inspection, the inspector discovered a crack in the left engine mount assembly.

The right engine, left forward carry-through beam bracket (P/N 45A34361-5) was cracked through the web at a radius. (Refer to the illustration.) A review of the maintenance records for this operator's fleet of like aircraft revealed this was the fourth similar failure in the past 2 weeks.

The submitter gave no cause for this defect. He suggested that all operators of like aircraft check this area closely at every opportunity.

Part total time-2,799 hours.



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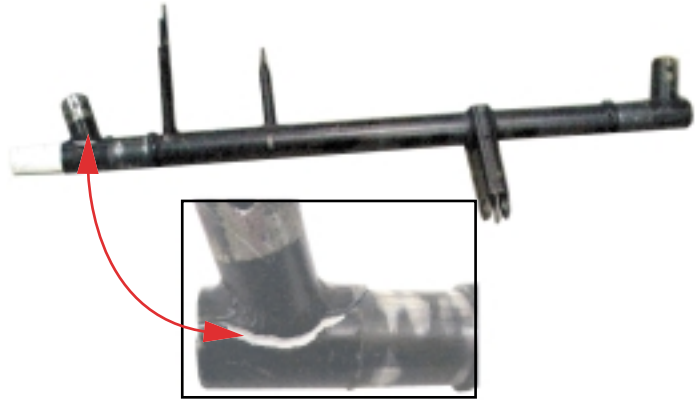
**CESSNA****Cessna; Model 152; Rudder Control System Failure; ATA 2720**

While the pilot was taxiing out for takeoff, he lost rudder control and found braking action was difficult.

A technician discovered the pilot's right rudder pedal attachment to the rudder bar assembly (P/N 0411526-1) was cracked. The crack was located at a weld and traveled around and adjacent to the weld. The attachment was in imminent danger of complete failure. (Refer to the illustration.)

The submitter recommended that technicians check this area closely during inspections and maintenance.

Part total time-8,393 hours.



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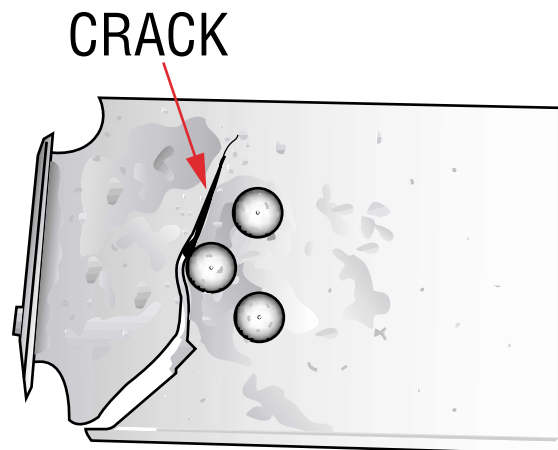
**Cessna; Model 152; Elevator Structural Defect; ATA 5552**

While performing other maintenance, a technician discovered structural damage on the elevator.

The technician removed the right elevator to replace a worn outboard bushing and discovered the elevator spar (P/N 0432001-21) was cracked. The spar crack was located under and adjacent to the outboard elevator hinge bracket. (Refer to the illustration.)

The submitter did not give a cause for this defect. However, the defect may have been caused by age, normal and abnormal operational vibrations, and the operational environment in which the aircraft was used. This area deserves close scrutiny during inspections and maintenance.

Part total time-6,516 hours.





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**Cessna; Model 172R; Skyhawk; Crew Seat Failure; ATA 2510**

After returning from a flight, the pilot reported the copilot's seat would not lock in the fore/aft position.

A technician found the cable adjustment was within limits. However, when he applied normal pressure, the seat still would not lock. After further investigation, he discovered the seat lock cylinder (P/N 0514213-2) was weak and did not produce a positive lock for the seat mechanism.

The submitter suggested the manufacturer design a stronger locking device to prevent inadvertent seat movement during flight.

Part total time-3,500 hours.

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**Cessna; Model 182S; Skylane; Pitot Static System Defect; ATA 3411**

While complying with Cessna Service Bulletin (SB) 00-34-01, the technician found burn marks on the pitot system pressure line.

The submitter stated this condition is the result of having a plastic line connected to the heated pitot mast. The intent of SB 00-34-01 is to correct this problem by adding a plastic spiral wrap to the line and power wires at the pitot mast. This remedy prevents the pitot line from direct contact with the hot parts of the pitot mast. However, the spiral wrap insulation is made of the same material as the original pitot line and is subject to the same heat damage.

The submitter recommended that Cessna replace the plastic line with a metal line that would withstand the heat generated by the pitot mast. He found this defect on four other aircraft that had the same pitot system design. He recommended that technicians conduct a periodic inspection on the pitot mast and line assembly for heat damage (even after complying with SB 00-34-01).

Part total time-297 hours.

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**Cessna; Model TU206F; Turbo Stationair; Alternator Assembly Defect; ATA 5421**

During a scheduled inspection, the inspectors discovered the fasteners, used to secure the alternator case, were loose.

Aero Electric, Inc., manufactured the alternator (P/N 9910592-1) used on this aircraft. The four internal wrenching bolts (P/N MDW 10021-1), used to attach the front and rear alternator case halves, were safety wired but loose. The submitter speculated the bolts were not properly installed during the assembly process and may have been "snugged down" and later saftied before the fasteners were torqued.

The submitter reported finding one additional similar defect. He recommended that aircraft with this type alternator installed receive a one-time inspection to determine the security of the case-half bolts.

Part total time-500 hours.

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**Cessna; Model 210D; Centurion; Horizontal Stabilizer Damage; ATA 5512**

While conducting an annual inspection, the inspector noticed “oil-canning” on the horizontal stabilizer skin. He applied hand pressure to the horizontal stabilizer skin and heard a popping sound.

This anomaly was found on both sides of the horizontal stabilizer and prompted the technician to investigate further. After removing the inboard fairings, he discovered the upper skin panel (P/N 1232600-4), under the right side fairing, was chafing against the skin panel. The chafing wore through the skin in an area approximately 4 inches long. The left upper skin panel (P/N 1232600-3) was chafed in the same location but not as severely. The left side was chafed through approximately 50 percent of the skin panel thickness (.020 inch). He speculated the skin damage was caused by a sharp edge on the fairings. He replaced both skin panels, removed a sharp edge from the fairings, and installed “antichafe” tape to the area.

Part total time 1,711 hours.

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**Cessna; Model 210L; Centurion; Electrical Wiring Chaos; ATA 2400**

During a scheduled inspection, the inspector discovered “unconventional” electrical system wiring.

The electrical wiring under and behind the instrument panels was totally unairworthy! There were permanently installed alligator clips connecting wires to terminals, a liberal use of noninsulated terminals and connectors, and most of the wire was not approved for aviation use.

As the submitter stated, “It was an absolute mess.” There were no maintenance record entries eluding to the source of this “mismaintenance.” How the aircraft electrical system came to such a state of disrepair could not be determined. Aircraft owners should ensure that only qualified maintenance personnel are allowed to make repairs.

Aircraft total time not reported.

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**Cessna; Model 310J; Main Landing Gear Failure; ATA 3213**

During takeoff, the right main gear wheel and lower strut assembly separated from the aircraft. The pilot landed the aircraft safely.

The available evidence indicated the upper and lower torque links became disconnected and allowed the parts to separate. It appears the pressed-in bushing came loose from the lower torque link allowing the bolthead and washer to pass through the enlarged hole normally occupied by the bushing.

The manufacturer’s Illustrated Parts Catalog indicates that a “special” washer (P/N 0841000-70) is required under the head of the torque link bolt. This washer has a larger outside diameter than the “AN” washer installed. The submitter stated the manufacturer’s Maintenance Manual instructions for this aircraft do not require installation of the “special” washer.

If there is any doubt about the proper installation, technicians should consult the manufacturer’s technical representative for instructions.

Part total time not reported.

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**Cessna; Model 402C; Businessliner; Wing Flap Failure; ATA 2750**

During a landing approach, the pilot selected the wing flaps down 15 degrees and heard a loud bang followed immediately by an uncommanded right roll. The pilot regained control of the aircraft and landed the aircraft safely.

While inspecting the aircraft, a technician discovered the right wing flap extend cable (P/N 5000008-62) was broken at right bodyline (BL) 18.5. The failure point is adjacent to the outboard pulley (P/N 5378-4) located at right BL 17.52. Apparently, metal fatigue due to age and usage cycles caused this failure.

The submitter speculated that if the pilot had selected the wing flaps to the “full-down” position when this defect occurred, he may not have regained aircraft control.

Part total time-6,895 hours.

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**Cessna; Model 560; Citation; Landing Gear Failure; ATA 3230**

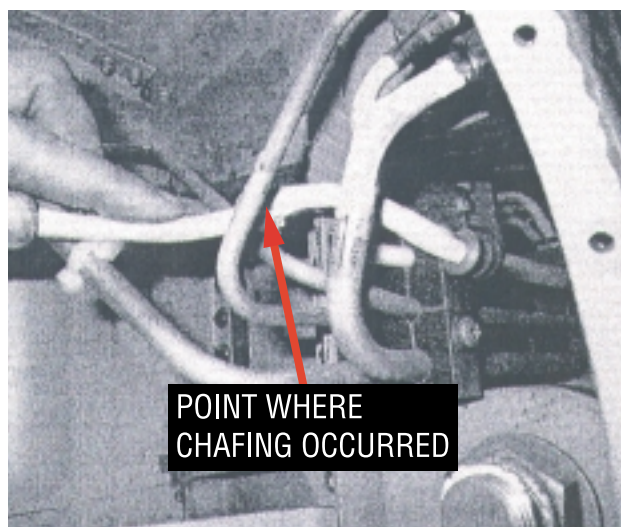
The pilot reported the landing gear would not retract after takeoff.

A technician discovered a wire, located inside a bundle in the left wheel well area, was shorted to ground. The wire bundle, consisting of approximately seven wires, was encased in “Shrink Wrap.” The chafing action of the wire bundle against a hydraulic line had penetrated the “Shrink Wrap” and the wire insulation causing the electrical short. (Refer to the illustration.) The technician replaced the “Shrink Wrap,” installed additional chafe protection, and repositioned the wire bundle to provide adequate clearance.

It is fortunate that the electrical arcing did not penetrate the hydraulic line and cause hydraulic system failure.

Part total time-3,057 hours.

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**EXTRA****Extra; Model EA-400; Engine Failure; ATA 7322**

This aircraft uses a Teledyne Continental, Model TSIOL-550-C engine. During a flight, the pilot experienced a total loss of engine oil, and the engine failed. The aircraft sustained damage during the landing incident.

A technician discovered the engine oil system filter was punctured allowing the loss of oil. The oil filter damage was caused by contact with a “B” nut used on a “TEE” fitting located on the metered fuel pressure port of the throttle body. The throttle body housing is mounted on rubber tubing to absorb

vibration and shock movements. It appears there was insufficient clearance between the “B” nut and the oil filter to prevent them from contacting when subjected to operational movements and vibration.

The submitter stated, “There needs to be more clearance between the fitting and the oil filter.” The application of a different type of fitting and the use of chafe protection may alleviate this condition.

Part total time-31 hours.

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## **MAULE**

### **Maule; Model M5-235; Lunar Rocket; Lose of Rudder Control; ATA 2720**

During the landing sequence, the pilot lost rudder control and “ground looped” the aircraft.

An investigation revealed the left rudder control cable (P/N 3177-29) had separated at a “Nicopress” fitting. The cable or the sleeve did not show evidence of corrosion or other defects. In accordance with the requirements of Airworthiness Directive (AD) 2000-09-06, the cable assembly was recently inspected and found to be in compliance.

The submitter recommended that all operators of aircraft using the “Nicopress” devices inspect the assemblies closely in accordance with AD 2000-09-06.

Part total time-1,660 hours.

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## **PIPER**

### **Piper; Model PA 18; Super Cub; Flight Control Component Damage; ATA 2720**

While disassembling the aircraft for a refurbishment project, a technician discovered the rudder pedals were damaged.

All four rudder pedals (P/Ns 40842-4 and -5) were damaged in the area where the return springs (P/N 40941-00) attach. The pedal return springs had cut through the lower hinge shaft wall. In the past, the damaged area had been weld-repaired at least once, and the spring tension action had again cut through the weld material. The technician replaced all the pedal assemblies. He stated that as the wear in this area progresses, the potential for binding increases. This aircraft was built in 1954 and was exposed to an accumulation of operational vibrations and wear that culminated in this finding.

Part total time-3,700+ hours.

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### **Piper; Model PA 28-151; Warrior; Aircraft Fire; ATA 7322**

The pilot stated that while attempting to start the engine, it backfired through the carburetor and caused an induction system fire. He exited the aircraft safely and escaped without injury. However, he could not extinguish the fire, and the aircraft was destroyed.

An inspector discovered the “gascolator,” installed in the engine compartment cover, was cracked. He believes fuel, leaking from the cracked “gascolator” cover, ignited when the engine backfired. There was

no indication that the engine fuel primer had malfunctioned or been misused, and no other source of fuel supply for the fire could be found.

Aircraft total time-2,404 hours.

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**Piper; Model PA 28-181; Archer; Defective Aileron Cable; ATA 2710**

While conducting a scheduled inspection, the technician discovered an aileron cable was severely damaged.

The right aileron balance cable (P/N 62701-124) was substantially worn where it passes through the right side of the fuselage. The submitter speculated improper cable alignment during the original assembly caused the cable wear. This was the second occurrence found in the submitter's fleet of like aircraft.

The submitter recommend giving the flight control cable alignment close attention during scheduled inspections.

Part total time 2,126 hours.

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**Piper; Model PA 31-350; Chieftain; Wing Flap Failure; ATA 2752**

After returning from a flight, the pilot reported the wing flaps would not retract after landing.

While investigating this problem, a technician discovered the right wing flap flexible drive shaft assembly (P/N 486-667) was very stiff and difficult to rotate. Also, the wing flap actuator motor (P/N 475-212) was inoperative. He speculated the stiffness of the flexible drive shaft assembly imposed an excessive load on the actuator and caused the failure.

The submitter recommended checking the wing flap flexible drive shaft for freedom during scheduled inspections.

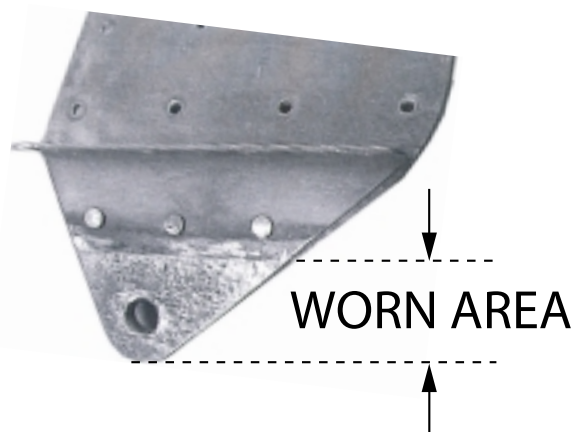
Part total time not reported.

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**Piper; Model PA 32R-300; Cherokee Lance; Defective Wing Attachment; ATA 5740**

During a scheduled inspection and maintenance, a technician discovered the right wing attachment was defective.

When the technician applied hand pressure to the inboard top or bottom of the wing leading edge, it produced a corresponding movement at the forward wing spar attachment fitting (P/N 66761-01). After disassembling the wing attachment fitting, he discovered it was severely fretted, worn, and the hole for an attachment bolt was oblong. (Refer to the illustration.) The cause for this defect was not given. The damage may be related to the aircraft's high number of operating hours.



Part total time-15,371 hours.

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**Piper; Model PA 32R-300; Cherokee Lance; Nose Landing Gear Defect; ATA 5280**

While conducting a scheduled inspection, the inspector discovered a nose landing gear door brace was broken.

The right nose gear door brace (P/N 38076-01) was broken at the rear attachment point. There were several cracks that emanated from the rivets at the aft end of the brace.

The submitter filed six reports of similar failures in his fleet of like aircraft. Three reports were generated on one aircraft at 104, 322 operating hours and 369 operating hours. Two reports were on another like aircraft and occurred at 94 operating hours and 297 operating hours. The remaining report occurred at an unknown number of operating hours. The FAA, Service Difficulty Program data base contains six additional reports of failure for this part number.

Part total times previously stated.

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**Piper; Model PA 32R-300; Cherokee Lance; In-Flight Cowling Separation; ATA 7110**

The pilot reported that during a flight, a section of the engine cowling separated from the aircraft. He stated the left side of the upper cowling came loose, rose up, and ripped out of the forward pins. A large section of the left side cowling was torn away. Following this event, the pilot was able to make a safe landing.

A technician inspected the remaining engine cowling (P/N 68780-04) fiberglass structure and found there were no previous repairs or obvious defects that may have contributed to this failure. The submitter could not determine a cause for the cowling failure. However, he suggested inspecting the fiberglass structure very closely at every opportunity.

Part total time not reported.

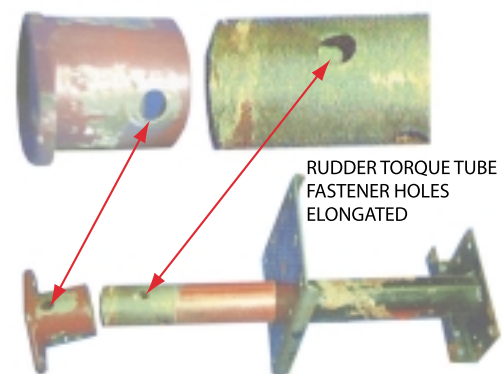
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**Piper; Model PA 34-200T; Seneca; Defective Rudder Attachment; ATA 5550**

While the aircraft was in a hangar for completion of a scheduled inspection, a technician discovered the rudder torque tube was loose.

The technician investigated further and discovered the rudder torque tube (mast) attachment bolts were extremely loose. He disassembled the unit and discovered the bolt was oversized, which is allowed by the manufacturer. The fastener holes were oblong and severely worn. (Refer to the illustration.) Piper issued Service Bulletin (SB) 699 which deals with this subject and offers sound advice to correct this type of defect.

The submitter suggested that the FAA issue an Airworthiness Directive that references SB 699 and requires mandatory compliance with the SB. He stated this type of damage could easily be overlooked during scheduled inspections. He recommended that technicians be aware of these findings and give this area close attention during inspections and maintenance.



Part total time-4,231 hours.

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**Piper; Model PA 34-200T; Seneca; Landing Gear System Failure; ATA 3230**

The pilot stated that after takeoff, the landing gear failed to fully retract. He immediately placed the landing gear selector in the “down” position. He landed the aircraft safely, even though the right main gear down-lock light did not illuminate.

While inspecting the system, a technician discovered a severe hydraulic leak in the nose wheel well. A hydraulic line in the gear retraction system was punctured. When he applied pressure, it leaked profusely. The line failed where it passes through an “Adel” clamp. The rubber cushion of the “Adel” clamp was worn out and exposed the metal clamp to the metal hydraulic line.

The submitter recommended that technicians remove the “Adel” clamps and inspect the condition of the clamp and the rubber cushion material.

Part total time-2,307 hours.

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**Piper; Model PA 60-600; Aerostar; Nose Landing Gear Malfunction; ATA 5280**

The pilot reported the nose landing gear did not retract after takeoff, and the “gear-up” indicator light did not illuminate.

A technician discovered the nose gear doors were damaged and interfering with the nose gear retraction cycle. The doors prevented the nose gear from going all the way into the “up” position. He suspected the nose gear door rigging was out of acceptable limits allowing a disruption of the gear retraction sequence. He rigged and repaired the gear doors, conducted an operational test, and approved the aircraft for return to service.

Part total time not reported.

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## SOCATA

**Socata; Model TB20; Trinidad; Landing Gear Failure; ATA 3230**

The pilot reported that during an approach, the landing gear failed to extend.

A technician found the landing gear control circuit breaker was open, and the landing gear “up” relay (P/N Zoo.n7733690395) contact points were welded closed. Considering the low number of operating hours, this seems to be a premature failure.

Operators of similar aircraft should be aware of this finding and take appropriate action.

Part total time-336 hours.

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## HELICOPTERS

### BELL

#### **Bell; Model 407; Tail Rotor Blade Defect; ATA 6410**

During a daily inspection, the technician discovered a damaged tail rotor blade.

The technician discovered an oval-shaped area of the tail rotor blade (P/N 406-016-100-119) was debonded. The damaged area began approximately 11 inches from the blade root and traveled outboard for approximately 6 inches. Also, the area began approximately 1 inch from the blade trailing edge and traveled to within approximately 3 inches from the trailing edge.

The submitter recommended that all technicians inspect this area closely at every opportunity.

Part total time-2,511 hours.

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### EUROCOPTER

#### **Eurocopter; Model AS-350BA; Ecureuil; Hydraulic System Failure; ATA 2913**

During a flight, the pilot experienced hydraulic system failure, and made a safe precautionary landing without further damage.

While investigating this incident, a technician discovered the hydraulic system drivebelt (P/N 704A33-690-004) was broken. Also, the air-conditioning system compressor drivebelt was broken. It appeared the air-conditioning system belt broke first and caused the hydraulic system belt failure.

The submitter believes this type of occurrence could be prevented if technicians were more critical of frayed or otherwise defective drivebelts during scheduled inspections.

Part total time-237 hours.

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#### **Eurocopter; Model BO-105LS; Lift Ship; Fuel Pump Failure; ATA 2822**

During a flight, the "low level fuel light" illuminated, and the pilot made a safe precautionary landing.

Maintenance technicians discovered both fuel pumps (P/N D107318E), located in the main fuel tank, were inoperative. It seems odd that both fuel pumps would fail at the same time. It is possible that one pump had been inoperative before the other pump failed.

The submitter gave no further information surrounding failure of the fuel pumps. The FAA Service Difficulty Program data base contains three additional reports concerning failures of these fuel pumps. Both flight and maintenance personnel should be aware of possible pump failures and report each occurrence.

Part time since overhaul-788 hours.

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## **MCDONNELL DOUGLAS**

### **McDonnell Douglas; Model 600N; Notar; Defective Tail Boom Security; ATA 5302**

During a preflight inspection, the pilot discovered a loose bolt in the tail boom area.

A technician removed a panel and discovered the loose bolt (P/N HS5482-5H18) was actually broken and was still retained in the hole by a safety wire. This bolt is one of several used to secure the tail boom to the fuselage. This is a critical structural joint and failure would likely be catastrophic. The bolt was broken approximately 2.5 threads from the shank.

The submitter suggested that all maintenance personnel closely inspect the security of these bolts at every opportunity.

Part total time not reported.

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## **AMATEUR, EXPERIMENTAL, AND SPORT AIRCRAFT**

### **AVIDFLYER**

#### **Avid Flyer; Engine Failure; ATA 7421**

The pilot/owner reported that during a flight, the engine would not maintain power, and he was forced to make an off-airport landing.

This aircraft uses a two cylinder Rotax, Model 532 engine.

This incident was investigated by an FAA inspector. He discovered the spark plug wire for one of the cylinders was disconnected. The wire, along with the top part of the spark plug (P/N NGKB8ES), was loose inside the engine compartment. The ceramic portion of the spark plug broke causing failure of the cylinder. The engine would not maintain sufficient power to maintain flight on one cylinder.

The submitter did not give a reason for the spark plug breakage, but it is possible the ceramic portion was cracked during a previous installation.

Part total time not reported.

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## **POWERPLANTS AND PROPELLERS**

### **TEXTRON LYCOMING**

#### **Textron Lycoming; Model IO-540-AB1A5; Airworthiness Directive Applicability; ATA 7310**

This engine was installed in a Cessna, Model 182S aircraft; however, the subject of this article may be applicable to many other makes and models of aircraft.

A recent report pointed out a situation that might cause a maintenance technician not comply with the requirements of an Airworthiness Directive (AD). Actually, the AD is not legally required; however, it should be required.

Airworthiness Directive 93-02-05 references Textron Lycoming Service Bulletin (SB) 342A for applicability with specific compliance data. In the applicability statement, the engine referenced in this article is not included. Evidently, this was an oversight because virtually all fuel-injected Textron Lycoming reciprocating engines are affected. This oversight was corrected by the issuance of Revision "D" to SB 342.

Originally, AD 93-02-05 was effective on June 14, 1993, and SB 342A was issued on May 26, 1992. Revision "D" to SB 342 was issued on July 10, 2001, and includes the engine model given in the title of this article. Since the issuance of Revision "D" to SB 342, the FAA has not revised the AD to include the engine models omitted from Revision "A" of SB 342.

Airworthiness Directive 93-02-05 addresses the possibility of fuel injector line leakage due to chafing on the cylinder fins. This situation is very confusing and needs to be rectified as soon as possible by a revision to AD 93-02-05. This information was passed along to the responsible FAA office for disposition and a revision to AD 93-02-05 is currently being considered.

In the interim, it is suggested that all maintenance technicians comply with the data contained in Revision "D" of SB 342 at the earliest possible time.

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### **Textron Lycoming; Model O-360-A3A; Propeller Loss During Flight; ATA 8510**

This engine was installed in a Piper, Model PA-28-180 aircraft. The propeller separated from the aircraft during flight, and the escaping engine oil obscured the pilot's vision. This event resulted in a serious aircraft accident.

While investigating the accident, an FAA inspector discovered the engine crankshaft (P/N LW-17162) was broken. The crankshaft failed on the aft side of the flange in the radius. From reviewing the maintenance records, the origin and history of the crankshaft was unclear. The only information found indicated the crankshaft was overhauled in June 1999. There was some speculation the engine may have been involved in a "propeller strike" at some time after the overhaul date.

The submitter stressed the importance of keeping a complete and accurate set of maintenance records that are required by Title 14 of the Code of Federal Regulations (14 CFR). It is very important to properly correct maintenance discrepancies when they occur.

Part time since overhaul-1,564 hours.

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## AIRNOTES

### ADVISORY CIRCULAR 43.13-1B UPDATE

The FAA has issued Change 1 to Advisory Circular 43.13-1B, Acceptable Methods, Techniques, and Practices - Aircraft Inspection and Repair.

This new data may be obtained on the Internet at: <<http://www.airweb.faa.gov/rgl>>. You may also access the basic document, with Change 1 incorporated, at: <<http://av-info.faa.gov/dst/43-13>>.

Any questions or comments concerning this publication should be addressed to Mr. George Torres. You may contact Mr. Torres at:

Telephone: (405) 954-6923

FAX: (405) 954-4104

E-Mail address [george.torres@faa.gov](mailto:george.torres@faa.gov)

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## **ELECTRONIC VERSION OF MALFUNCTION OR DEFECT REPORT**

One of the recent improvements to the AFS-600 Internet web site is the inclusion of FAA Form 8010-4, Malfunction or Defect Report. This web site is still under construction and further changes will be made; however, the site is now active, usable, and contains a great deal of information.

Various electronic versions of this form have been used in the past; however, this new electronic version is more user friendly and replaces all other versions. You can complete the form online and submit the information electronically. The form is used for all aircraft except certificated air carriers who are provided a different electronic form. The Internet address is:

<http://av-info.faa.gov/isdr/>

When the page opens, select "M or D Submission Form" and, when complete, use the "Add Service Difficulty Report" button at the top left to send the form. Many of you have inquired about this service. It is now available, and we encourage everyone to use this format when submitting aviation, service-related information.

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## **SERVICE DIFFICULTY REPORTING PROGRAM**

The objective of the Service Difficulty Reporting (SDR) Program is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products fleet wide. The SDR program is an exchange of information and a method of communication between the FAA and the aviation community concerning inservice problems.

A report is filed whenever a system, component, or part of an aircraft, powerplant, propeller, or appliance fails to function in a normal or usual manner. In addition, if a system, component, or part of an aircraft, powerplant, propeller, or appliance has a flaw or imperfection which impairs, or which may impair its future function, it is considered defective and should be reported under the program.

These reports are known by a variety of names: Service Difficulty Reports (SDR), Malfunction and Defect Reports (M and D) and Maintenance Difficulty Reports (MDR).

The consolidation, collation and analysis of the data, and the rapid dissemination of trends, problems and alert information to the appropriate segments of the aviation community and FAA effectively and economically provides a method to ensure future aviation safety.

The FAA analyzes SDR data for safety implications and reviews the data to identify possible trends that may not be apparent regionally or to individual operators. As a result of this review, the FAA may disseminate safety information to a particular section of the aviation community. The FAA also may adopt new regulations or issue airworthiness directives (AD's) to address a specific problem.

The primary source of SDR's are certificate holders operating under Parts 121, 125, 135, 145 of the Federal Aviation Regulations, and the general aviation community which voluntarily submit records. FAA Aviation Safety Inspectors may also report service difficulty information when they conduct routine aircraft and maintenance surveillance as well as accident and incident investigations.

The SDR database contains records dating back to 1974. Reports may be submitted on the Internet through an active data entry form or on hard copy. The electronic data entry form is in the AFS-600

Aviation Information web site under the heading SDR Main Menu. The URL is: <<http://av-info.faa.gov>>

A public search/query tool is also available on this same web site. This tool has provisions for printing reports or downloading data.

At the current time we are receiving approximately 45,000 records per year.

**Point of contact is:**

Tom Marcotte  
Service Difficulty Program Manager  
Aviation Data Systems Branch, AFS-620  
P.O. Box 25082  
Oklahoma City, OK 73125

Telephone: (405) 954-6500  
9-AMC-SDR-ProgMgr@mmacmail.jccbi.gov

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## ADDRESS CHANGES

In the past, the Designee Standardization Branch (AFS-640) maintained the mailing list for this publication. Now, the Government Printing Office (GPO) sells this publication and maintains the mailing list; therefore, please send your address change to: U.S. Government Printing Office, **ATTN: SSOM, ALERT-2G**, 710 N. Capital Street N. W., Washington, DC 20402

You may also send your address change to GPO via FAX at: (202) 512-2168. If you FAX your address change, please address it to the attention of: **SSOM, ALERT-2G**. Whether you mail or FAX your address change, please include a copy of your old address label, and write your new address clearly.

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## IF YOU WANT TO CONTACT US

We welcome your comments, suggestions, and questions. You may use any of the following means of communication to submit reports concerning aviation-related occurrences.

**Editor:** Phil Lomax (405) 954-6487  
**FAX:** (405) 954-4570 or (405) 954-4748

**Mailing address:** FAA, ATTN: AFS-640 ALERTS, P.O. Box 25082,  
Oklahoma City, OK 73125-5029

**E-Mail address:** Phil\_W\_Lomax@mmacmail.jccbi.gov

You can access current and back issues of this publication from the internet at: <http://afs600.faa.gov>

When the page opens, select "AFS-640" and then "Alerts" from the drop-down menu. The monthly issues of the Alerts are available back to July 1996, with the most recent edition appearing first.

## AVIATION SERVICE DIFFICULTY REPORTS

The following are abbreviated reports submitted between January 7, 2002, and January 30, 2002, which have been entered into the FAA Service Difficulty Reporting (SDR) System data base. This is not an all inclusive listing of Service Difficulty Reports. For more information, contact the FAA, Regulatory Support Division, Aviation Data Systems Branch, AFS-620, located in Oklahoma City, Oklahoma. The mailing address is:

FAA  
Aviation Data Systems Branch, AFS-620  
PO Box 25082  
Oklahoma City, OK 73125

These reports contain raw data that has not been edited. If you require further detail please contact AFS-620 at the address above.

## FEDERAL AVIATION ADMINISTRATION

### Service Difficulty Report Data

Sorted by Aircraft Make and Model then Engine Make and Model. This Report Derives from Unverified Information Submitted By the Aviation Community without FAA review for Accuracy.

ACFTMAKE ACFTMODEL REMARKS	ENG MAKE ENG MODEL	COMPMMAKE COMPMODEL	PARTNAME PART NUMBER	PART CONDITION PART LOCATION	DIFF-DATE OPER CTRL NO.	T TIME TSO
DURING 1ST 8 MONTH INSPECTION, LIFE RAFT HAS TOO MUCH POROSITY. RECOMMENDATION BETTER COATING OF FABRIC AND MORE INTENSIVE INSPECTION AFTER MANUFACTURING OF RAFT. (M)			LIFE RAFT R0097104	DAMAGED CABIN	08/09/2001 2002FA0000103	
AGUSTA A119			BLADE 109813201111	CRACKED TAIL ROTOR	10/24/2001 AUS20011109	
(AUS) TAIL ROTOR BLADE CRACKED IN AREA OF DOUBLER WHERE THE FINGERS ARE BLENDED INTO THE BLADE SKIN. CRACKS FOUND USING THE NAKED EYE AND CONFIRMED USING DYE PENETRANT INSPECTION.						
FOUND. AIRCRAFT SERVICEABLE.						
AIRTRC AT802			CONTROL ROD 705541	BENT AILERON CONTROL	11/01/2001 AUS20011170	
(AUS) LT AILERON CONTROL ROD BENT. SUSPECT CAUSED BY WIND GUST.						
AMRGEN AG5B	LYC VO360*		BEARING	FAILED MAGNETO	08/01/2001 2002FA0000106	
MAGNETO FORWARD BEARING SEIZED BENDING SHAFT AND DRIVE GEAR ROAD OVER ENGINE ACCESSORY DRIVE GEAR CHIPPING DRIVE GEAR AND PUTTING ENGINE OUT OF TIME SHUTTING ENGINE DOWN WHEN TAXIING AND ENGINE WOULD NOT RESTART. (M)						
AMTR GLASAIRIISTD			FORK 3525151004	BROKEN MLG	12/10/2001 2002FA0000095	918 40
DURING LANDING THE AIRCRAFT VEERED OFF TO THE RIGHT SIDE OF THE RUNWAY. AN INSPECTION REVEALED A RIGHT HALF FORK WAS BROKEN. THE WHEEL ATTACHES TO THIS HALF FORK WHICH ATTACHES TO THE MAIN STRUT. PER A GLASAIR REPRESENTATIVE, MFG. OF THE GLASAIR KITS FOR AMATUER BUILDERS, THIS PART IS NOW MADE OF STEEL. THE CAST ALUMINUM HALF FORK, SUCH AS THE BROKEN PART, WAS REPLACED BY THE STEEL HALF FORK ABOUT 8-10 YEARS AGO. AN UPGRADE WAS MADE AVAILABLE TO ALL THE PREVIOUS KITS FROM GLASAIR.						
AMTR KISTR1	AMTR SUBURU		FUEL FILTER	CLOGGED FUEL SYSTEM	10/24/2001 2001FA0000539	6
INTREGAL FUEL TANK, FIBERGLASS DUSTY FIBERS CLOGGED FUEL FILTER ENOUGH TO DEGRADE POWER. FORCED LANDING DUE TO LACK OF POWER. AIRCRAFT HAD 6 HOURS SINCE INITIAL FLIGHT. IT APPEARS THAT FIBERS FROM INSIDE THE FIBERGLASS FUEL TANK MIGRATED IN THE FIRST FEW HOURS OF OPERATION AND CLOGGED THE IN-LINE						
AMTR KITFOXIV			ROLL SERVO 065001790100	MALFUNCTIONED AUTO PILOT	12/03/2001 2001FA0000623	378
OPERATOR ENCOUNTERED RESTRICTED ROLL AUTHORITY. PRIMARY AP SERVO WAS FOUND TO BE CAUSING RESTRICTED CAPSTAN MOVEMENT. SOUNDS LIKE LOOSE PARTS ARE FLOATING AROUND INSIDE SERVO BODY						

AMTR		BLADE	DAMAGED	10/22/2001	286
PUREAIR		332A12005001	TAIL ROTOR	ERAA077281	
TAIL ROTOR BLADE HAS AN INTERNAL NOISE AND SUSPECT THAT THERE MAY BE SOMETHING LOOSE INSIDE.					
AMTR	AMTR	HUB	CRACKED	10/20/2001	
RV8	CHEVYV8		PROPELLER	AUS20011095	317
(AUS) PROPELLER HUB CRACKED. FOUND DURING INSPECTION IAW AIRCRAFT MANUFACTURERS ALERT.					
AMTR	CONT	CRANKSHAFT	CRACKED	07/19/2001	
RV8	O200*	630066A	ENGINE	AUS20011134	38
(AUS) CRANKSHAFT CRACKED. SUSPECT CAUSED BY UNREPORTED PROPELLER STRIKE. CAM DRIVE BOLTS SHEARED. NO EVIDENCE OF LOCKWIRING ON BOLTS.					
AYRES	PWA	STUD	SHEARED	10/04/2001	
S2RNORMAL	R1340AN1		ENGINE	CA011121001	
(CAN) NR 1 AND 5 CYLINDERS BASE RETAINING STUDS SHEARED.					
BBAVIA	CONT	CONTACTOR	BROKEN	12/16/2001	32
402CHAMP	O200A	S8111	FIELD COIL	2002FA0000004	
UNABLE TO OPERATE AIRCRAFT. STARTER CONTACTOR RELAY INOPERATIVE UPON DISASSEMBLY, FOUND FIELD COIL WIRE WHERE IT ATTACHES TO POSITIVE CONNECTOR BROKEN OFF.					
BBAVIA	LYC	PULLEY	WORN	10/18/2001	
8GCBC	O360C2E	12395	FLAP SYSTEM	CA011031012	
(CAN) - LT & RT PULLEYS INBOARD & OUTBOARD ALL FOUND WORN.- LT & RT CABLES FRAYED UNSERVICEABLE AND REPLACED. - CABLES FRAYED AT PULLEYS ON OUTBOARD POSITION.- SOLID ALUMINUM PULLEYS WITH SMALL RADIUS AND SEIZE EASILY CAUSING EXCESSIVE CABLE WEAR.					
BBAVIA	LYC	CABLE	FRAYED	10/02/2001	
8GCBC	O360C2E	12364	RUDDER	CA011120003	
(CAN) BOTH LT AND RT CABLES FRAYED JUST INCHES FWD OF BAGGAGE COMPARTMENT PULLEYS.					
BEECH	PWA	SKIN	CHAFED	10/23/2001	
100BEECH	PT6A28	97400021101	FUSELAGE	CA011109006	10337
(CAN) DUE TO THE ANGLE OF CONTACT BETWEEN THE WING CENTRE SECTION TO FUSELAGE FILLET P/N 50-420023-37 AND -38 AND THE FUSELAGE SKIN P/N 97-400021-101 AND -102 WHEN THE RIVETS WORK LOOSE IN THE FILLET IT IS ALLOWED TO CHAFE INTO THE FUSELAGE SKIN. THIS SKIN IS A PRESSURE SKIN AND REQUIRES ENGINEERING APPROVED FOR REPAIRS TO REDUCE RECURRENCE OF THIS PROBLEM THERE SHOULD BE AN ANTICHAFF MEDIUM BETWEEN FILLET AND SKIN, I.E. PRC 1422-B 1/2 AND RIVETS SHOULD BE KEPT IN TOP CONDITION, FIXING ANY DEFECTS AS THEY					
BEECH	PWA	WIRE	BROKEN	10/11/2001	
100BEECH	PT6A28		LT MLG	CA011018009	
(CAN) NO DOWN AND LOCK INDICATION FOR THE RT MAIN LANDING GEAR. FOLLOWING A MANUAL EXTENSION THE AIRCRAFT LANDED WITH OUT INCIDENT. INSPECTION REVEALED A BROKEN WIRE ON THE RT MAIN DOWN AND LOCK SWITCH. REPAIRS CARRIED OUT. LANDING GEAR FUNCTION CHECKED SERVICEABLE					
BEECH	PWA	GCU	FAILED	08/31/2001	
1900C	PT6A65B	51538001A	LT STARTER GEN	CA011012004	
(CAN) AIRCRAFT DEPARTED SMITHERS, THE LT GENERATOR KICKED OFF LINE FOLLOWED BY A FAINT ELECTRICAL ODOR. THEY RETURNED TO THE SMITHERS AIRPORT AND DEPLANED PASSENGERS. MAINTENANCE FOUND LT GENERATOR CONTROL UNIT TO BE EMITTING ODOR. IT WAS REPLACED ALONG WITH THE LT GENERATOR. THE SYSTEM TESTED NORMALLY AND THE AIRCRAFT DEPARTED WITH NO FURTHER INCIDENTS.					
BEECH	PWA	TORQUEMETER	ERODED	10/09/2001	
1900D	PT6A67D	3012347	ENGINE	CA011031003	
(CAN) A/C EXPERIENCING REOCCURRING PROBLEMS WITH TORQUE IND. & RUDDER BOOST RELATED SYSS OVER PERIOD OF 30 DAYS. SEVERALATTEMPTS TO CORRECT VIA CLEANING & REPLACING OF EXTERNAL COMPONENTS WERE COMPLETED & TEMPORARILY CORRECTED PROBLEMS ON EACH ATTEMPT.AFTER EXHAUSTING ALL POSSIBLE EXTERNAL CONTRIBUTORS, ENGINE SPLIT AT "C" FLANGE & FROM PT DISC FWD TO "A" FLANGE, DISASSEMBLED TO ACCESS TORQUEMETER VALVE. VALVE FOUND TO BE ERRODED OR GROUND DOWN BY APPROX 0.125 INCH. ALLOWEDPORTING OF OIL AT UNSPECIFIC & UN-CNTLLED TIMES. "SWARF" BEING CREATED BY GRINDING EFFECTS ALSO MOVING ABOUT CAVITY & CAUSING SPORATIC EFFECTS OF PISTON MISALIGNMENT WITH OIL PORTS.					
BEECH	PWA	WINDSHIELD	CRACKED	11/08/2001	
200BEECH	PT6A41	10138402521	COCKPIT	CA011116018	
(CAN) THE AIRCRAFT WAS IN CRUISE AT FLIGHT LEVEL 290, APPROXIMATELY 50 MILES NW OF SUDBURY, ONTARIO, ENROUTE FROM THUNDER BAY TO THETFORD MINES, QUEBEC, WHEN THE LT WINDSHIELD INNER PANE SHATTERED. THE CREW REDUCED PRESSURIZATION TO 4 PSI DIFFERENTIAL PRESSURE AS PER FLIGHT MANUAL PROCEDURES AND DIVERTED TO QUEBEC CITY.THE CREW REPORTED THAT THE WINDSHIELD HEAT WAS IN THE "HIGH" SELECTION AND THAT THE OAT WAS -36 DEGREES C AT THE TIME OF THE OCCURRENCE.					
BEECH		MOUNT	CRACKED	12/31/2001	2992
400A		45A34361005	LT ENGINE	RASFTYRK195	
CRACK FOUND IN LT FORWARD ENGINE MOUNT BRACKET WHILE PERFORMING FLUORESCENT PENETRANT INSPECTION AS PER RAYTHEON AIRCRAFT SAFETY COMMUNIQUE NR 189.					
BEECH		MOUNT	CRACKED	11/27/2001	2805
400A		45A34361005	LT ENGINE	RASFTYRK198	
WHILE PERFORMING A ROUTINE SCHEDULED INSPECTION, INSPECTORS NOTED THE LT FORWARD ENGINE MOUNT BRACKET TO BE CRACKED APPROX 75 PERCENT THROUGH THE LOWER HALF.					
BEECH	PWA	BOLT	LOOSE	10/02/2001	
400A	JT15D5	GYS186C21	WHEEL	AUS20011056	
(AUS) LT MAIN WHEEL TIE BOLTS LOOSE. TIRE DEFLATED.					
BEECH		ROLL SERVO	MALFUNCTIONED	12/03/2001	378
58		065001790100	AUTO PILOT	2001FA0000621	378
OPERATOR THAT ROLL CONTROL BECAME RESTRICTED AND DIFFICULT DURING FLIGHT. INVESTIGATION REVEALED THAT THE PRIMARY ROLL SERVO WAS FOUND TO BE CAUSING RESTRICTION TO CAPSTAN. THIS SERVO WAS REMOVED AND HAS AUDIBLE SOUND OF OBJECTS FLOATING LOOSE INTERNALLY.					
BEECH	CONT	SCREW	MISINSTALLED	09/14/2001	
58	IO520C	NAS2219	LTAILERON	AUS20011022	
(AUS) LTAILERON ATTACHMENT SCREWS INCORRECTLY LOCATED.AILERON HAD PREVIOUSLY BEEN REMOVED FOR ACCESS AND SCREWS HAD MISSED THE ANCHOR NUTS DURING REPLACEMENT. PERSONNEL/MAINTENANCE ERROR.					
58	IO520C	9652400029P	RUDDER	AUS20011122	
(AUS) RT REAR RUDDER CABLE INCORRECTLY ROUTED. CABLE EXCESSIVELY WORN.					

BEECH	CONT	WORM GEAR	CRACKED	10/16/2001	
58	IO520C	9581001723	MLG	AUS20011150	
(AUS) LANDING GEAR GEARBOX / ACTUATOR HOURS UNKNOWN (2000 HOURS OVERHAUL). LANDING GEAR GEARBOX FOUND TO HAVE NO OIL. GEAR ACTUATOR WORM DRIVE PNO 35-810076-3 FOUND TO HAVE FATIGUE CRACKS (MECHANICAL HANDLE ATTACHMENT END).					
BEECH	PWA	SWITCH	INTERMITTENT	11/20/2001	
99A	PT6A28	41EN16	MLG	CA011122006	
(CAN) AIRCRAFT DEPARTED AIRPORT AND COULD NOT RETRACT GEAR. AIRCRAFT DEVERTED TO HOME BASE AND LANDED WITHOUT INCIDENT. THE SAFETY SWITCH WAS FOUND INTERMITTANT ON THE RIGHT HAND GEAR TORQUE KNEES. SWITCH WAS REPLACED AND AIRCRAFT RETURNED TO SERVICE. NOTE: PART TIME IS UNKNOWN					
BEECH	PWA	RIB	CRACKED	11/15/2001	15323
A100	PT6A28	5016000310	TE FLAP	CA011120011	15323
(CAN) WHILE CONDUCTING A PREFLIGHT INSPECTION A CRACK IN THE FLAP SKIN WAS DETECTED. THE CRACK WAS LOCATED AROUND THE FLAP ACTUATOR ATTACH BRACKET. FURTHER INVESTIGATION REVEALED THAT BOTH THE FLAP SKIN AND THE NOSE RIB OF THE LT / B FLAP WERE CRACKED. FURTHER INVESTIGATION REVEALED THAT THE LT O/B FLAP WAS CRACKED IN THE SAME AREA BUT TO A LESSER DEGREE. THE NOSE RIBS IN BOTH THE L/H INBOARD AND OUT BOARD ALONG WITH ASSOCIATED FLAP SKINS.					
BEECH	PWA	BRACKET	CRACKED	11/06/2001	15320
A100	PT6A28	505244325	ELEVATOR	CA011108003	15320
(CAN) WHILE CONDUCTING THE INSPECTION OF THE ELEVATOR PULLEY BRACKETS IAW BEECH SB 2150 ELEVATOR PULLEY BRACKET PART NR 50-524432-5 AND 50-524432-7 WERE FOUND CRACKED. SERVICE KIT NR 90-4098-1 S INSTALLED IN ACCORDANCE WITH BEECH SB 2150 REVL					
BEECH	PWA	LANDING GEAR	FAILED	10/11/2001	
A100	PT6A28		RIGHT	CA011012002	
(CAN) AFTER TAKE-OFF RT GEAR INDICATION INDICATED RT GEAR NOT RETRACTED. GEAR WAS CYCLED DOWN AND THEN INDICATED NOT DOWN AND LOCKED. SUBSEQUENT RE-CYCLE PRODUCED SAME RESULT (NO GREEN FOR RT SIDE AND INTRANSIT LIGHT ON IN GEAR HANDLE). OBSERVATION DURING AIRCRAFT FLY-BY SHOWED GEAR IN DOWN AND LOCKED POSITION. ON THE LANDING ROLL, RT GEAR RETRACTED UNDER THE WEIGHT OF THE AIRCRAFT.					
BEECH		SUPPORT	CRACKED	12/04/2001	11996
A200		501202015	MLG	040521239	
LEFT HAND AND RIGHT HAND MAIN LANDING GEAR DRAG LEG SUPPORTS FOUND TO BE CRACKED DURING FLUORESCENT PENETRANT INSPECTION. INSPECTION ORDERED BY U.S. CUSTOMS SERVICE BASED ON REPORTS FROM U.S. ARMY OPERATORS.					
BEECH		SUPPORT	CRACKED	12/04/2001	12534
A200		501202015	MLG	040521239A	
LEFT HAND MAIN LANDING GEAR DRAG LEG SUPPORT FOUND TO BE CRACKED DURING FLUORESCENT PENETRANT INSPECTION. INSPECTION ORDERED BY U.S. CUSTOMS SERVICE BASED ON REPORTS BY U.S. ARMY OPERATORS.					
BEECH	LYC	CLAMP	MISSING	11/04/2001	
C24R	IO360A1B6	L16694S1A	PROP GOVERNOR	AUS20011212	1070
(AUS) PROPELLER GOVERNOR OIL LINE CRACKED AT FLANGE IN AREA OF ATTACHMENT TO THE GOVERNOR. LOSS OF ENGINE OIL CAUSED ENGINE TO SEIZE. INVESTIGATION FOUND THAT THE TWO CLAMPS REQUIRED BY AD/LYC/86 AMDT2 WERE NOT FITTED. PERSONNEL/ MAINTENANCE ERROR.					
BELL	LYC	SEGMENT	MISSING	10/24/2001	
204B	T5311B	204001739003	T/R G/B CHAIN	CA011109007	
(CAN) UPON INSTALLATION OF THE NEW CHAIN, THE ENGINEER NOTICED A SPACE BETWEEN SOME CHAIN LINKS. CHAIN IS MISSING A SEGMENT.					
BELL	ALLSN	FCU	FAILED	09/24/2001	
206B	250C20	23034702	ENGINE	CA011002001	
(CAN) FUEL CONTROL WAS REPAIRED. FUEL CONTROL WAS INSTALLED ON BELL 206B DUE TO THE OLD ONE NEARING OVERHAUL. AFTER GROUND RUNS A TEST FLIGHT WAS CARRIED OUT ON AIRCRAFT. AFTER THE TEST FLIGHT THROTTLE WAS DECREASED TO FLIGHT IDLE WHEN THE ENGINE ALMOST FLAMED OUT. ON THE THROTTLE ROLL DOWN THE NG RPM WENT TO 25 PERCENT (NORMAL IDLE SPEED 61 PERCENT TO 63 PERCENT NG) NG RPM WOULD NOT RESPOND TO THROTTLE MOVEMENT. INSTALLED ANOTHER FUEL CONTROL AND DEFECT WENT AWAY.					
BELL	ALLSN	RROYCE	BEARING	FAILED	09/15/2001
206B	250C20	6886442	23034787	M/R GEARBOX	CA011002003
(CAN) PILOT REPORTED A CHIP LIGHT & A LOUD GRINDING NOISE COMING FROM THE ENGINE REGION. THE PILOT MADE A PRECAUTIONARY LANDING TO A LANDING SIGHT. THE CHIP PLUGS WERE REMOVED & FOUND LARGE AMOUNT OF FLAKES. ON THE INVESTIGATION FOUND THE TWO AND A HALF BEARING FAILED IN THE ENGINE GEARBOX. THE GEARBOX HAS 12264.1 TSN AND 2675.0 TSO. WHEN THE 2 1/2 BEARING FAILED IT CUT A GROOVE IN THE SPUR ADAPTER					
BELL	ALLSN	FITTING	CRACKED	07/27/2001	12293
206B	250C20	2060313291	TAILBOOM	CA011002009	
(CAN) TAILBOOM FITTING LT FUSELAGE SIDE FOUND CRACKED VERTICALLY 1 INCH IN LENGTH. NEW PART ORDERED AND INSTALLED.					
BELL	ALLSN	TURBINE	FAILED	01/04/2002	358
206L3	250C30P	230583299	ENGINE	HEEA077554	
ENGINE WAS REMOVED DUE TO WHISTLING SOUND AT HOVER AND GRINDING ROAR ON COOL DOWN. UPON INSPECTION OF TURBINE PARTS NOTED NR 1 WHEEL BLADE FAILURE WITH 1/8 INCH OF BLADE REMAINING FROM BLADE ROOT LEADING EDGE. BLADE TIPS EXHIBIT TIP DRAG AND FOD DAMAGE. NR 2 NOZZLE 1ST STAGE TIP PATH RUNOUT AT DISASSEMBLY WAS .002 INCHES AND 1ST STAGE WHEEL TIP CLEARANCE IS .014 INCHES ASSEMBLY TIP CLEARANCE WAS .0135 INCHES. PART WILL BE RETURNED TO ROLLS ROYCE FOR FAILURE INVESTIGATION.					
BELL	PWA	LINE	LEAKING	09/21/2001	
212	PT6T3	70012J220W234	HYD SYSTEM	CA011105003	
(CAN) DURING RUN UP THE SUBJECT LINE STARTED LEAKING, THIS WAS REPORTED BY PASSENGERS IN AIRCRAFT WHO NOTICED HYDRAULIC FLUID LEAKING INTO CABIN FROM OVERHEAD. AIRCRAFT WAS SHUT DOWN AND THE AME LOCATED THE LEAKING LINE ON NR 2 HYDRAULIC SYSTEM. THIS LINE WAS LAST PRESSURE TESTED 10/98. NEW LINE WILL BE INSTALLED PRIOR TO AIRCRAFT RETURN TO SERVICE.					
BELL	LYC	REGULATOR	LEAKING	09/08/2001	
222U	LTS101750C1	108839	MLG FLOAT	CA011116007	
(CAN) AIRCRAFT BELL 222U POP-OUT FLOAT SYSTEM CHARGED TO 3000 PSI AFTER CHANGING FLOAT BOTTLE. SYSTEM LEAKED APPROXIMATELY 200 PSI OVER A 12 HOUR PERIOD. BY REMOVING THE LINES TO AIR BAG IT WAS CONFIRMED THAT AIR WAS LEAKING THROUGH SHEAR HEAD BY SMALL CRACKS. THE SHEAR HEAD IS TO MAINTAIN 3000 PSI IN THE FLOAT BOTTLE TILL FLOATS ARE DEPLOYED.					



BELL 407		BEARING 407340339101	FAILED MAIN ROTOR	01/02/2002 HEEA077658	140
IN CRUISE, PILOT DETECTED VIBRATION / LOW RUMBLING NOISE FROM AFT AREA OF AIRCRAFT. NOISE/VIBRATION INCREASED WITH INCREASE IN POWER. MAINTENANCE INSPECTED AND FOUND NR 2 SHAFT / OIL COOLER ASSY AFT BEARING FAILURE.					
BELL 407	ALLSN 250C47B	BLADE 407015001107	CRACKED MAIN ROTOR	10/31/2001 CA011119004	
(CAN) DURING AIRFRAME PERIODIC INSP 3.5 INCH DIAGNAL CRACK ON LOWER SKIN OF SUBJECT BLADE FOUND AT BLADE STATION 71.0-73.0. ATTEMPTS TO DRESS OUT CRACK WITH LIGHT SANDING REVEALED SUSPECT LACK OF FIBERGLASS MATTING USED IN CONSTRUCTION OF BLADE TYPE. EVIDENCED BY FURTHER EXPLORATORY SANDING GOING THROUGH GEL ADHESIVE COATING & FILLER MATERIAL & ENDING AT HONEYCOMB CORE W/O 1ST ENCOUNTERING FIBERGLASS CLOTH MATTING.					
BELL 412		SKIN 205030856113	CRACKED RTELEVATOR	10/12/2001 ERAA076684	
RT ELEVATOR SKIN CRACKED. FOUND SPAR TO BE UNBONDED AT FLANGE & ROOT RIB TO BE CORRODED BEYOND LIMITS. ACTION TAKEN: RE-MANUFACTURER OUTER SKIN, REPLACED SPAR & ROOT RIBS & REASSEMBLED. C/W AIRWORTHINESS DIRECTIVES OR SB'S AS PER TB-412-83-31. THIS INFORMATION IS FOR FAA SDR.					
BELL 412		BEARING 412040002103	MAKING METAL TAIL ROTOR	11/16/2001 ERAA077296	7849
TRANSMISSION IS MAKING METAL. TAIL ROTOR QUILL BEARINGS CAUSE OF METAL CONTAMINATION. SEAL LEAKS. MAIN INPUT R/B QUILL, SYS II HYD QUILL AND AUX JETS ON RING GEAR CASE. ACTION TAKEN: REPAIRED, PARTIALLY DISASSEMBLED, VISUALLY INSPECTED EXPOSED COMP. INSTALLED NEW BEARINGS T/R QUILL AND PACKED WITH GEAR, INSTALLED NEW SEALS, AND GASKET, O RINGS TO REPAIR LEAKS. ALL WORK IAW BHT 412 CR&O.					
BELL 412	PWA PT6T3B	STRUCTURE	CORRODED COOLER BLOWER	11/15/2001 ERAA077293	8358
VANE GUIDE ASSY HAS PITTING & CORROSION. COATING ASSY HAS MECHANICAL DAMAGE ON OUTER LIP. SLIGHT CORROSION ON LOCK PLATE. SPACER FAILED DUE TO MECHANICAL DAMAGE. IMPELLAR HAS CRACKED BLADES. ACTION TAKEN: DISASSEMBLED & STRIPPED PAINT. COMPLIED WITH VISUAL & NDT INSPECTIONS. REMOVED & TREATED SLIGHT CORROSION. HAD VARIOUS PARTS PAINTED. REASSEMBLED & OVERHAULED USING NEW COATING ASSY., IMPELLAR, GUIDE VANE ASSY, NEW BEARINGS, PACKING, GASKET, AND HARDWARE AND NEW DECAL IAW 412 CR&O CHAPTER 79 & BHT-ALL-SPM.					
BELL 412	PWA PT6T3B	BLADE 212010750105	CONTAMINATED TAIL ROTOR	11/02/2001 AUS20011187	281
(AUS) TAIL ROTOR BLADE CORE CONTAMINATED WITH WATER. FOUND DURING X-RAY INSPECTION AFTER BLADE WAS UNABLE TO BE BALANCED AND WAS FOUND TO BE 66 GRAMS HEAVIER THAN THE MASTER BLADE.					
BELL 430		HYDRAULIC	MALFUNCTIONED NR 1	12/10/2001 HEEA077445	
ONE HOUR AND 10 MINUTES INTO THE FLIGHT THE SCAS KICKED OFF. THE NR 1 HYDRAULIC SYSTEM PRESSURE FLUCTUATED BETWEEN 0 AND 130 PSI WITH RESITANCE IN THE TAIL ROTOR PEDALS. DURING ENGINE COOL DOWN, TURNED NR 1 HYDRAULIC SYSTEM ON AND PRESSURE WAS STEADY AT 1430 PSI WITH NO RESISTANCE IN THE TAIL ROTOR PEDALS. CLEANED ALL CONNECTORS IN HYDRAULIC SYSTEM AT BYPASS SOLENOID, PRESSURE SWITCHES, PRESSURE TRANSDUCERS AND SERVICED RESERVOIR.					
BRAERO HS125700A	GARRTT TFE731*	HOSE	CORRODED HYD SYSTEM	12/11/2001 2002FA0000016	
HEAVY CORROSION BUILD UP UNDER OUTER PLASTIC SLEEVE ON EXTERIOR HYDRAULIC SYSTEM FLEX HOSES MOSTLY IN THE LANDING GEAR AREA DUE TO WATER OR DISSIMILAR METAL. THIS ONLY NOTED ON 700 SERIES AIRCRAFT. REC. SB OR SL TO LOOK FOR BULGING AT METAL BRAID HOSE WHERE HOSE MEETS THE (B) NUT FITTING.					
CARSON S61LSKRSKY	GE CT581401	FREEWHEEL 5610743500060	WORN GEARBOX	09/10/2001 CA011012007	
(CAN) DURING LIFTING OP AT 86 PERCENT Q. PILOT NOTICED TORQUE SPLIT ACCOMPANIED BY THUD NOISE & YAW KICK. A/C RT-SRV AREA WHERE INPUT FREEWHEEL UNITS WERE REMOVED FOR INSP. HIGHER THAN NORMAL WEAR FOUND ON BOTH UNITS FOR THE TIME IN SERVICE. AFTER GATHERING INFO ON CONDITION OF INPUT FREEWHEELS IT DOES NOT LOOK LIKE THOSE IS ASSY PROBLEM. IS EVIDENCE OF DAMAGE TO ROLLER RETAINERS. BOTH RETAINERS HAVE CONTACTED CAMSHAFTS, IS ABNOR MAL WEAR. WHEY RETAINERS HAVE CONTACTED IS NOT KNOWN AT TIME					
CESSNA 150H	CONT O200A	CYLINDER SA10200A20P	CRACKED ENGINE	10/10/2001 AUS20011078	
(AUS) NR 2 CYLINDER CRACKED FOR APPROXIMATELY 80 PERCENT OF CIRCUMFERENCE AT THE BASE OF THE THREAD ON THE CYLINDER BARREL BETWEEN THE TOP BARREL FIN AND THE BOTTOM FIN ON THE CYLINDER HEAD.					
CESSNA 150M	CONT O200A	SPRING 031019613	BROKEN RUDDER CONTROL	07/31/2001 CA011102007	
(CAN) DURING A PRE-FLIGHT INSPECTION, THE PILOT SAW THE RUDDER TURNED WHILE THE FRONT WHEEL WAS STRAIGHT AND THE PEDALS WERE OFF-CENTERED. AN INSPECTION DETERMINED THE RIGHT SPRING WAS MISSING AND FOUND BELOW IN THE FUSELAGE.					
CESSNA 150M	CONT O200A	MOUNT 045111432	CRACKED ENGINE	10/11/2001 CA011114014	
(CAN) DURING A 50 HOUR INSPECTION THE ENGINE MOUNT WAS FOUND CRACKED. THE SUPPORT WAS REPLACED.					
CESSNA 170A	CONT C1452	MOUNT 04112816	CORRODED LT ENGINE	08/27/2001 CA011120009	(CAN) LT UPPER
ENGINE MOUNT BRACKET AFT OF FIREWALL EXTREME CORROSION (HALF OF BRACKET MISSING) VERY DIFFICULT TO SEE DUE TO INSULATION COVERING ON FIREWALL.					
CESSNA 170B	LYC O340*	EYEBOLT	MISINSTALLED FUSELAGE	11/29/2001 2001FA0000672	
FLOAT EQUIPPED, LIFTING EYES WERE INSTALLED IN THE WRONG POSITION. RESULTING IN DRILLING THROUGH THE MAIN FORWARD WINGSPAR AND LEAVING APPROXIMATELY EDGE DISTANCE. BETWEEN THE FORWARD SPAR ATTACH BOLT AND EDGE OF SPAR. (EYES SHOULD BE INSIDE CABIN TOP RIVET LINE) (K)					
CESSNA 172M	LYC O320E2D	ARM 07430118	CRACKED NLG STEERING	07/31/2001 CA011105014	
(CAN) THIS PROBLEM WAS DISCOVERED DURING THE AIRCRAFTS ANNUAL INSPECTION. THE CRACK IS ALL OF THE WAY THROUGH THE FORWARD SIDE OF THE ARM, VERTICALLY ORIENTED AND PASSES THROUGH THE GREASE FITTING HOLE. IT APPEARS TO HAVE ORIGINATED AT THE FILLET FORMED BY THE RIGHT SIDE OF THE STEERING STOP LUG, AND THE UPPER MACHINED SURFACE OF THE ARM. ALL RELEVANT STEERING PARTS ARE SERVICEABLE AND THERE IS NO APPARENT CAUSE FOR THE CRACK.					
CESSNA 172M	LYC O320E2D	MCAULY 1C160DTM755	BOLT CA462220W	BROKEN PROPELLER	08/29/2001 CA011004010
(CAN) ONE OF THE 6 BOLTS ATTACHING THE PROPELLER TO THE ENGINE CRANK SHAFT FLANGE BROKE AT THE TOP OF THE THREADED AERON INITIAL TORQUE. THE PROPELLER HAD A PLACARD INDICATING TORQUE SPED FOR 1/2" BOLTS. PROLLER IS ATTACHED WITH 7/16" BOLTS. IT IS SUSPECTED THAT THE BOLTS HAVE BEEN OVER TORQUED ON PREVIOUS INSTALLATIONS. PLACARD WAS REMOVED FROM THE PROPELLER AND BOLTS TORQUED TO THE PROPER TORQUE SPEC FOR 7/16 BOLTS.					

CESSNA 172R		CONNECTOR S2800275	INADEQUATE JBOX	10/10/2001 2001FA0000611	1411
CONNECTOR PB017, PN: S2800-275, WHICH ATTACHES SHIP WIRING TO J2 OF POWER JUCTION BOX MC01-2A, HAD INADEQUATE CRIMPS OF BOTH WIRE ENDS ATTACHING WIRES TO SOCKETS. SOCKET "A" HAD AN OPEN CIRCUIT WHICH CAUSED LOSS OF BUSS NR 2 H1014. WHEN PULLED ON, THE WIRES EASILY CAME OUT OF THE CONNECTOR. CORRECTIVE ACTION WAS TO CRIMP & SOLDER THE CONNECTOR.					
CESSNA 182M	CONT O470R	CONTROL C2995060102	BROKEN PROPELLER	12/14/2001 2002FA0000024	3695
PILOT COMPLAINED THAT THE PROPELLER CONTROL WAS HARD TO MOVE. WHEN TECHNICIAN INVESTIGATED, THE CONTROL CABLE BROKE AND CAME OFF IN TECHNICIAN'S HAND. REMOVED AND REPLACED CONTROL WITH NEW					
CESSNA 208	PWA PT6A114A	CESSNA SUPPORT 26320273	CORRODED HORIZONTAL STAB	09/15/2001 CA011029003	
(CAN) DURING AN ANNUAL INSPECTION, WHEN THE HORIZONTAL STABILIZER WAS REMOVED TO CARRY OUT A REPLACEMENT OF A SPAR CAP. CORROSION (PITTING) WAS NOTED IN ONE OF THE FORWARD SUPPORTS AND BOTH OF THE AFT SUPPORTS. NO DAMAGE IS ALLOWED TO CASTINGS OR FITTINGS. 3 OF THE 4 ATTACH SUPPORTS REQUIRED REPLACEMENT AS PER FACTORY RECOMMENDATION.					
CESSNA 208	PWA PT6A114A	SEAT TRACK 261106014	CORRODED FUSELAGE	09/15/2001 CA011029007	
(CAN) WHILE PERFORMING AN ANNUAL INSPECTION THE AREA AT THE AFT END OF NR 2 / 3 / 4 SEAT RAIL UNDER THE FLOOR AT FS 283.85 WAS NOTED TO HAVE SEVERE CORROSION ON THE STIFFENER P/N 2611131-3 AND THE DOUBLERS P/N 2611192-4 AS WELL AS THE SEAT RAIL. THE CORROSION WAS CLEANED AS REQUIRED FROM THE STRUCTURE AND SEAT RAILS NR 2 AND NR 4. THE STIFFENER, DOUBLERS AND NR 3 SEAT RAIL, AS WELL AS THE ATTACHING HARDWARE					
CESSNA 208	PWA PT6A114A	HINGE 263440221	CORRODED EMPENNAGE	09/15/2001 CA011029008	
(CAN) WHILE PERFORMING AN ANNUAL INSPECTION ON THIS AIRCRAFT, EXCESSIVE MOVEMENT WAS NOTED FROM THE OUTBOARD AND CENTRE HINGE BEARINGS FOR THE R/H ELEVATOR. WHEN THE HINGE SUPPORTS WERE DISMANTLED TO REPLACE THE BEARINGS, CORROSION WAS FOUND ON BOTH HALVES OF THE INBOARD AND CENTRE HINGE SUPPORTS. THE HINGE SUPPORTS AS WELL AS THE BEARINGS WERE REPLACED AS PER FACTORY					
CESSNA 208B	PWA PT6A114A	BELL CRANK 262400724	WORN AILERON	09/21/2001 CA011005004	
(CAN) DURING SCHEDULED MAINTENANCE, EXCESSIVE PLAY WAS FOUND BETWEEN THE RT OUTBOARD AILERON BELL CRANK AND THE RESPECTIVE AILERON PUSH / PULL TUBE. FURTHER INVESTIGATION REVEALED THAT THE ATTACH POINT HOLE DIMENSIONS WERE BEYOND ACCEPTABLE LIMITS. BELL CRANK WAS REPLACED WITH A NEW ASSEMBLY.					
CESSNA 337H	CONT IO360GB	ARM 63255536	WORN MIXTURE	12/20/2001 2002FA0000005	
DURING ANNUAL INSPECTION FOUND MIXTURE ARM ROD END ATTACHING BOLT LOOSE. ATTEMPTED TO TIGHTEN BOLT BUT FOUND THERE WAS STILL PLAY. DISASSEMBLED ROD END ATTACHING BOLT AND A STEEL SERRATED BEARING INSERT FELL OUT OF THE BRONZE MIXTURE ARM. THIS WAS CAUSED BY THE ROD END ATTACHING BOLT BEING TOO LOOSE. SPHERICAL BALL ROD END ATTACHING BOLTS SHOULD BE TIGHT TO ALLOW THE ROD END TO					
CESSNA 401B	CONT TSIO520EB	J961358 SPACER 85921701	WRONG PART ENGINE MOUNT	09/16/2001 CA011003015	
(CAN) WHILE INSTALLING NEW ENGINE NOTICED THAT ENGINE ATTACH BOLTS WERE TOO SHORT. PART NR OF BOLTS WERE CORRECT. ENGINE MOUNTS WERE FOUND TO BE PROBLEM. SPACERS IN ENGINE MOUNT KITS WERE WRONG LENGTH & WRONG PART NR.					
CESSNA 421B	CONT GTSIO520H	PRESTOLITE BOLT	LOOSE ALTERNATOR	12/12/2001 2002FA0000018	44
ALTERNATOR THRU BOLT CAME OUT AND ARCED ON STATOR TERMINAL. INSPECTED ALTERNATOR AND REINSTALLED ALTERNATOR BOLT. CHECKED TORQUE ON REMAINING BOLTS. SUGGEST BENDING LOCK TABS OVER PROPERLY AFTER TORQUING BOLTS.					
CESSNA 425		FAN 09040022	FAILED COCKPIT FLOOR	11/30/2001 2001FA0000617	30
AIRCRAFT RETURNED FROM FLIGHT WITH CABIN BLOWER OPERATING BUT NOT MOVING ANY AIR. GAINED ACCESS TO BLOWER ASSEMBLY UNDER CO-PILOT FLOOR. FOUND ALL FAN BLADES TO BE BROKEN OFF. THIS IS THE SECOND TIME THIS HAS HAPPENED IN LESS THAN TWO MONTHS. CHECKED MOTOR FOR SECURITY AND LOOSENESS, CHECKED GOOD. CHECKED FAN HUB FOR SECURITY AND LOOSENESS ON MOTOR SHAFT AND FOUND THAT IT WAS TIGHT. INSTALLING TECHNICIAN SAID THAT HE SPECIFICALLY CHECKED FOR BLADE CLEARANCE AROUND HOUSING WHEN THIS FAN WAS INSTALLED AND IT WAS FINE. HIGHLY SUSPECT DEFECTIVE FAN BLADE AT MANUFACTURE. RECOVERED ALL BROKEN BLADES AND INSPECTED. FOUND ONE WITH WHAT APPEARED TO BE A CLEAN BREAK AT BASE. SUSPECT THAT ONE					
CESSNA 441		RIB 57222061	CRACKED LT CENTER WING	01/09/2002 2002FA0000126	7401
DURING A SCHEDULED INSPECTION, IT WAS NOTED THAT THE LEFT WING CENTER SECTION CANTED RIB CAP P/N: 5722206-1 (LCWS 26.85 INCHES) HAD A CRACK ALONG THE BEND RADIUS AFT OF THE CENTER WING MAIN SPAR (FS 177.45) AND EXTENDING APPROXIMATELY 1 INCH AFT OF THE SPAR. AFTER REMOVAL OF THE RIB CAP, CLOSE EXAMINATION OF THE PART REVEALED THAT THE CAP WAS MANUFACTURED WITH THE BEND RADIUS PARALLEL TO THE GRAIN OF THE METAL RESULTING IN A GRAIN SEPARATION TYPE CRACK.					
CESSNA 550	PWA JT15D4	RIVET 555225056	LOOSE INLET	09/20/2001 CA011018016	
(CAN) AIRCRAFT DOWN FOR PHASE 5 INSPECTION. L/H ENGINE - 2 RIVET IN THE 5 O'CLOCK POSITION AND 3 RIVETS AT 7 O'CLOCK POSITION HAD THE HEADS PULLED 1/3 TO 2/3 AROUND THE SHANK DIAMETER. R/H ENGINE 5 TO 6 RIVETS IN THE 3 TO 6 O'CLOCK POSITION HAD THE HEADS PULLED 1/4 TO 2/3 AROUND THE SHANK DIAMETER. ALL BAD RIVETS					
CESSNA A185F	CONT IO520D	BRACKET 0512128	BROKEN TE FLAPS	09/14/2001 CA011003014	10325
(CAN) FLAPS WOULD NOT EXTEND PROPERLY FOR TAKEOFF. PILOT LEFT FLAPS IN UP POSITION AND RETURNED TO BASE. BRACKET IS MOUNTED TO LOWER BULKHEAD USING 4 SCREWS AND LOCKNUTS ON THE 4 MOUNT TABS. BOTH INBOARD TABS ON BRACKET HAD FAILED AT THE BEND RADIUS, ALLOWING THE BRACKET TO BEND FORWARD AND BIND THE CABLE ON THE COTTER PIN THAT KEEPS THE CABLE IN THE PULLEY GROOVE. NO OTHER DAMAGE WAS DONE TO THE STRUCTURE OR CABLE.					
CESSNA A188B		BRAKE ASSY	MALFUNCTIONED MLG	11/23/2001 2001FA0000612	
THE PILOT STARTED THE AIRCRAFT ENGINE, THE AIRCRAFT STARTED TO ROLL, AT WHICH TIME THE PILOT APPLIED THE BRAKES. THE LEFT BRAKE WAS OPERATIONAL BUT THE RIGHT WAS FLAT. THIS CAUSED THE AIRCRAFT TO SWERVE TO THE LEFT HITTING A CESSNA CARAVAN DAMAGING BOTH AIRCRAFT. THE BRAKE SYSTEM WAS INSPECTED, RESERVOIR FOUND TO BE FULL, NO LEAKS FOUND. SUSPECT AIR IN THE BRAKE SYSTEM.					
CESSNA S550	PWA JT15D1	WIRE HARNESS 6508012202	INTERMITTENT MLG	11/21/2001 AUS20011239	
(AUS) LT ANTISKID TRANSDUCER WIRING HAD AN INTERMITTENT FAULT. NO BRAKING DURING LANDING RESULTED IN EMERGENCY BRAKING SYSTEM OPERATION. RH TYRE FAILED DUE TO WHEEL SKIDDING. RT MAIN WHEEL HUB ALSO DAMAGED.					

CESSNA	CONT	BRACKET	CRACKED	10/01/2001	
U206E	IO520F	122005217	LT AILERON	AUS20011116	
(AUS) LT AILERON HINGE BRACKET CRACKED AND BROKEN AT LOWER ATTACHMENT POINTS. LT INBOARD AND RT OUTBOARD BRACKETS ALSO CRACKED. SPAR AND RIB ALSO CRACKED.					
CIRRUS		BRACKET	BROKEN	10/16/2001	264
SR20			MLG FAIRING	2001FA0000609	
BOTH LEFT AND RIGHT MAIN LANDING GEAR INBOUARD FAIRING BRACKETS BROKEN, CAUSING FAIRING TO BE VERY LOOSE. GAUGE OF METAL IS TOO THIN FOR THIS HIGH VIBRATION APPLICATION.					
CIRRUS		BEARING	BROKEN	10/16/2001	264
SR20		50597001	PROP GOVERNOR	2001FA0000610	
PROPELLER GOVERNOR CABLE EXTREMELY STIFF WITH POSSIBLE BROKEN WIRE INSIDE OUTER SHROUD. THIS CAUSED THE THROTTLE LEVERBEARING, WHERE THE ROD END FOR THE PROP GOVERNOR CABLE ATTACHES TO THE THROTTLE LEVER, TO BREAK APART. THE STRENGTH OFTHE BEARING FOR THIS APPLICATION IS QUESTIONABLE. THE THROTTLE LEVER PN 10007-001 ALSO HAD TO BE REPLACED.					
DHAV	PWA	HOSE	FAILED	06/09/2001	
DHC2*	R985AN1	6A09000097	FLOAT STRUT	AUS20011146	
(AUS) RT LANDING GEAR HYDRAULIC HOSE CHAFED INSIDE FLOAT STRUT. HOSE BURST. LOSS OF HYDRAULIC FLUID. AIRCRAFT IS A FLOATPLANE.					
DHAV	PWA	INDICATOR	EXPLODED	10/23/2001	
DHC2MK1	R985AN14B	659450105	ENG TRIPLE GAUGE	CA011116005	
(CAN) ENGINE TRIPLE GAUGE EXPLODED: - CASE SPLIT (TOTAL CIRCUMFERENCE). - 1 LARGE PORTION OF CASE BROKEN OFF. - FRONT GLASS FACE PLATE SHATTERED OUTWARD SLIGHTLY INJURING PASSENGER IN CO-PILOT SEAT.					
DHAV	PWA	STRUT	CORRODED	11/15/2001	14676
DHC2MK1	R985AN14B	C2FS3282A	WINDOW FRAME	CA011121005	
(CAN) THE AIRCRAFT WAS UNDERGOING SCHEDULED MAINTENANCE.THE RIGHT HAND WINDSHIELD WAS BEING REPLACED. THE RIGHT FRONT FUSELAGE STRUT ASSY WAS FOUND CORRODED UNDER THE WINDSHIELD SUPPORT ASSY. THIS STRUT ASSY WAS EXAMINED IN ACCORDANCE WITHCF-98-37R1 IN FEBRUARY OF THIS YEAR. THE AREA CORRODED IS NOT ACCESSIBLE UNLESS THE WINDSHIELD IS REMOVED.					
DIAMON	ROTAX	DIAPHRAGM	SWOLLEN	10/19/2001	
DA20A1	ROTAX912	861115	CYLINDER	CA011031005	
(CAN) DURING 200 HR INSP OIL FOUND BETWEEN NR 1 & 3 CYLINDERS. COMPRESSION CHECK CARRIED OUT TO DETERMINE CYLINDER THATPRODUCING OIL. BOTH CYLINDERS PRODUCED NORMAL COMPRESSION READINGS. WHEN BOTTOM SPARK PLUGS WERE REMVD ONE FROM CYLINDER NR 3 FOUND TO HAVE EVIDENCE ON BURNED OIL. NR 3 CYLINDER ASSY & PISTON REMVD. PISTON HEAD COVERED IN BURNED OIL RESIDUE. PISTON HEAD HAD ALSO HAD SMALL PORTIONS OF ITS SURFACE CHIPPED AWAY. DURING THE PREVIOUS INSP (50 HR) NR 1 CYLINDER ASSY & PISTON WERE REPL. IT BELIEVED THAT FAILURE OF NR 1 PISTON RESULTED FROM FAILURE OF PISTON RING.					
DOUG	ALLSN	VANE	CRACKED	10/04/2001	
600N	250C47B	23064577A	COMPRESSOR	AUS20011060	
(AUS) COMPRESSOR SCROLL ASSEMBLY RT TURNING VANE CRACKED. A PIECE OF THE VANE APPROXIMATELY 38.1MM BY 17.78MM (1.5IN BY0.7IN) WAS MISSING. A SMALL PIECE OF THE LT VANE ALSO APPEARS TO BE MISSING.					
GIPPLD	LYC	BRACKET	SHEARED	09/28/2001	
GA8	IO540K1A5	GA538021233	HORIZONTAL STAB	AUS20011077	745
(AUS) RT HORIZONTAL STABILISER ATTACHMENT BRACKET RIVETS SHEARED.					
GROB	LYC	CAP	DISLODGED	11/21/2001	
G115C	O360A1F6	BURKLIN12H366	ELEVATOR	AUS20011366	
(AUS) ELEVATOR BALANCE HORN BLANKING CAP DISLODGED AND RESTRICTED ELEVATOR MOVEMENT. FOD.					
GULSTM	LYC	CONTROL	MISINSTALLED	11/29/2001	
114	IO540T4B5	472105	RUDDER	AUS20011280	
(AUS) LT RUDDER CONTROL CABLE INCORRECTLY ROUTED UNDER SUPPORT BRACKET. CABLE RUBBING ON PULLEY SUPPORT BRACKET. ELEVATOR TRIM CABLE ALSO INCORRECTLY ROUTED AND FOULING ON STRUCTURE. PERSONNEL/MAINTENANCE ERROR.					
GULSTM	GARRTT	PUSHROD	BENT	11/07/2001	
690A	TPE3315251K	90000949722	PAX DOOR	CA011116001	
(CAN) DURING CLIMBOUT THE AIRCRAFT PRESSURIZATION REDUCED FROM 4.8 PSI TO 3.5 PSI. UPON INVESTIGATION IT WAS NOTED THATTHE LOWER AFT ENTRANCE DOOR BAYONET WAS NOT EXTENDING INTO THE AIRFRAME. THE TWO PUSHRODS P/N'S 900009-49-7.22 AND 900009-49-9.70 WERE FOUND BENT WHICH CAUSED THE BAYONET NOT TO EXTEND INTO THE AIRFRAME. THE PUSHRODS WERE REPLACED AND THE CABIN DOOR MECHANISM WAS RE-RIGGED. DOOR OPERATION WAS CHECKED, THE DOOR SEAL WAS INSPECTED AND A PRESSURIZATION CHECK WAS COMPLETED AND CHECKED SERVICEABLE. THE AIRCRAFT WAS RETURNED TO SERVICE.					
GULSTM		PANEL	CRACKED	11/29/2001	
GIV			FUSELAGE	2001FA0000616	
PANEL (107-CLB-5) LOCATED ON THE LOWER PORTION OF THE FUSELAGE PRESSURE VESSEL AFT OF THE MAIN WHEEL WELL CRACKING AROUND A VHF ANTENNA MOUNTING NUTPLATE ATTACHED TO THE PANEL.					
HUGHES		STRUCTURE	CRACKED	12/20/2001	
369D		369D23601501	HORIZONTAL STAB	OMNIDMR01	
HORIZONTAL STABILIZER CRACKED ON TRAILING EDGE AND TRIM TAB CRACKED ON LEADING EDGE DUE TO EXCESS FLUTTER. CRACKING CONCENTRATED AROUND AREA OF DAMPER WEIGHTS. TABS WERE TOO LONG AND ARE SUPPORTED ONLY BY RIVETS LOCATED ON LEADING EDGE.THE DAMPER WEIGHTS ADDED TO COMPENSATE. THE WEIGHTS NOT FLUSH TO TAB CREATES EXCESSIVE DRAG AND FURTHER CONTRIBUTES TO EXCESSIVE VIBRATION. THE EXCESSIVE FLUTTER COMMON IN 369 SERIES.					
HUGHES	ALLSN	FUEL CONTROL	MALFUNCTIONED	10/22/2001	
369D	250C20	23065104	ENGINE	LS1R076721	
MAKES ENGINE RUMBLE AT IDLE; ENGINE N1 DECREASES 1/2 TO 1 PERCENT WITH START PUMP ON AND RETURNS TO NORMAL WHEN OFF.					
HUGHES	ALLSN	SHAFT	BROKEN	09/27/2001	
369D	250C20B	369D25400	T/R GEARBOX	CA011012009	
(CAN) GEARBOX RECEIVED FROM CUSTOMER WITH COMPLAINT OF T/R VIBRATION AND METAL GENERATION. ON STRIP DOWN THE OUTPUT GEARSHAFT WAS REMOVED AND THE OUTPUT JOURNAL AND THE END OF THE OUTPUT GEARSHAFT WERE FOUND INSIDE OF THE ALIGNMENT BEARING.THE OUTPUT GEARSHAFT HAD FAILED.THIS THE SECOND OCCURRENCE OF THIS TYPE, THE FIRST OCCURRED 1997-03-05.					
KAMOV		THROTTLE	CHAFED	10/10/2000	
KA32A1		50059300750012	ENGINE	CA011120006	
(CAN) CABLE CHAFED THROUGH AT ENGINE DECK, OPENING IN ENGINE DECK PRESSURE SEAL INCREASED TO PREVENT RE-OCCURRENCE.					
KAMOV		LIMITER	CRACKED	09/16/2001	
KA32A1		D2B20000B	MAIN ROTOR	CA011002006	
(CAN) CRACK DISCOVERED DURING POST FLIGHT INSPECTION. FURTHER INVESTIGATION FOUND LEAD AND LAG DRAG HINGE BEARINGS WEREVERY STIFF IN TWO OF THE 3 ROTOR HEAD SLEEVES.					

LEAR	GARRTT	LINE	CHAFED	10/07/2001	
35A	TFE73122B		FUEL SYSTEM	AUS20011062	
(AUS) LT ENGINE FIRE. DAMAGE TO COWLING. FIRE DAMAGE EVIDENT IN AREA OF STARTER MOTOR. INVESTIGATION FOUND THAT ELECTRICAL ARCING FROM A CHAFED WIRE TO A P' CLAMP HAD BURNT A SMALL HOLE APPROXIMATELY 1MM (0.039IN) IN DIAMETER IN THE ENGINEFUEL FEED LINE CAUSING THE FUEL TO IGNITE IN THE					
LEAR	GARRTT	WIRE	BURNED	11/01/2001	
35LEAR	TFE73122B		ELECTRICAL	CA011119009	
(CAN) DURING UNSCHEDULED MAINTENANCE A WIRE BUNDLE, LOCATED AT CONNECTOR P616, BEHIND CAPTAIN'S INSTRUMENT PANEL E500 WAS FOUND WITH NUMEROUS BURNT WIRES. INSTRUMENT PANEL WAS REMOVED TO GAIN ACCESS TO BUNDLE. INSPECTION IN PROGRESS.					
MOONEY		LINE	LEAKING	12/04/2001	
M20J			FUEL SYSTEM	2001FA0000622	
MOONEY 201 M20J: OWNER REPORTED LOW FUEL PRESSURE. FOUND AEROQUIP LINE LEAKING THROUGH BODY OF INNER TUBE STOCK. THISLINE HAS A STAINLESS STEEL BRAID COVERING FULL LENGTH. HOSE HAD A CURE DATE 3RD QUARTER 1995 WITH MANUFACTURED DATE JAN1998. HOSE IS CONNECTED TO FUEL INJECTOR AND FUEL PRESSURE SENDER. HOSE WAS LEAKING SUBSTANCIAL AMOUNTS OF FUEL ABOVE EXHAUST SYSTEM AND ENGINE OPERATION WAS					
NAMER	PWA	WIRE	BROKEN	07/17/2001	
HARVARDMK4	R1340AN1	4533516	MLG INDICATOR	CA011026001	
(CAN) DURING PRE-LANDING CHECK, THE PILOT NOTICED THAT THE RT LANDING GEAR INDICATOR PIN WAS NOT SHOWING ALL THE WAY DOWN. ALL OTHER GEAR INDICATIONS WERE NORMAL. (GREEN LIGHT AND VISUAL INDICATION). INVESTIGATION REVEALED THAT THE LANDING GEAR INDICATOR CABLE WAS PULLING OUT OF THE TERMINAL END. THIS RESULTED IN A CABLE THAT WAS SLIGHTLY LONGER AND THEREFORE GIVING THE ERRONEOUS INDICATION. A NEW CABLE WAS INSTALLED.					
NAMER	WRIGHT	FILTER	CONTAMINATED	09/18/2001	
T28*	R1820*		FUEL SYSTEM	AUS20011019	
(AUS) AIRCRAFT FUEL FILTER CONTAMINATED. CONTAMINATION ALSO FOUND IN CARBURETTOR FUEL FILTER.					
PIPER	LYC	MOUNT	BROKEN	10/04/2001	
PA18A150	O320A2B	12351015	ENGINE	CA011004016	
(CAN) ENGINE MOUNT RIGHT DIAGNEL ARM FOUND BROKEN APPROX 2" FROM UPPER RIGHT FIREWALL ATTACH POINT. ENGINE MOUNT REMOVED AND REPLACED WITH NEW					
PIPER		BRACKET	CRACKED	11/30/2001	
PA23150		17052	HORIZONTAL STAB	2001FA0000618	
AFTER REMOVING THE PAINT FROM THE ELEVATOR HINGE BRACKETS, DISCOVERED THAT BOTH ELEVATOR HINGE BRACKETS ON THE RIGHT SIDE OF THE HORIZONTAL STABILIZER WERE CRACKED THROUGH THE BEARING BORE BOSS, BETWEEN THE BORE AND THE OUTER EDGE OF THE BRACKET. THE CAUSE OF THE CRACK IS UNKNOWN.					
PIPER		VALVE	LEAKING	11/05/2001	3692
PA23250		A23D04	HEATER	2001FA0000528	
WHILE PERFORMING THE INSPECTION OF THE HEATER FUEL REGULATOR VALVE P/N A23D04 (PIPER P/N 461-731) AS REQUIRED BY AD 2001-17-13, THE VALVE WAS FOUND TO LEAK BY VISUAL INSPECTION. THE LEAKAGE WAS NOT EVIDENT UNTIL THE VALVE WAS REMOVED FROM THE SHROUD. THE VALVE WAS REPLACED WITH A NEW VALVE AS					
PIPER	LYC	BRACKET	CRACKED	12/18/2001	3132
PA23250	IO540*	1610302	VERTICAL STAB	2002FA0000020	
VERICAL STAB BRACKET CRACKED, OCCURRED DURING NORMAL OPERATING CONDITIONS AND WAS DISCOVERED AT APPROX 3130 AC TT.					
PIPER		CONTROL	CORRODED	10/30/2001	2471
PA28140		6270102TO13	AILERON &	2001FA0000521	
CONTROL CABLES FOUND TO HAVE CORRODED END FITTINGS AS DESCRIBED IN NTSB LETTER OF APRIL 16, 2001 TO FAA. AILERON, RUDDER, AND STABILATOR CABLES ALL REPLACED WITH NEW. MECHANIC NEEDS TO USE A LOW POWER (5X OR 10X) MAGNIFYING GLASS TO SEE PITTING CLEARLY.					
PIPER		CONTROL	CORRODED	11/27/2001	
PA28140		6270114	TE FLAPS	2001FA0000615	
NEW FLAP CABLE (62701-14) ORDERED TO REPLACE EXISTING FLAP CABLE THAT CORRODED ON MS21260 END FITTING WAS ALSO FOUND TO BE PITTED AND CORRODED.					
PIPER	LYC	STRINGER	BROKEN	10/04/2001	
PA28140	O320E3D	6208603	WING	CA011030001	
(CAN) FLANGES AT END OF STRINGER ARE CRACKING. EVENTUALLY THE ENTIRE END OF STRINGER WILL SEPARATE. EACH WING HAS TWO STRINGERS ON INBOARD BOTTOM SKIN. BOTH ARE BROKEN ON THE RIGHT WING. LEFT WING IS OKAY. IT IS VERY DIFFICULT TO INSPECT THIS AREA ON NEWER PA28'S. IT IS TOTALLY IMPOSSIBLE ON OLDER PA28'S DUE TO LACK OF INSPECTION PANEL. I HAVE SEEN THIS BEFORE, ABOUT TWO YEARS AGO. BUT, IT WAS ON A PA34-200 TWIN. IT LOOKED LIKE AN ONE TIME EVENT, PECULIAR TO THAT AIRCRAFT. NOW I SEE IT AGAIN ON A SIMILAR WING BUT, IT HAS CROSSED MODEL LINES.#11 PART AVAILABLE. "NO", BUT PICTURES WERE TAKEN WITH A DIGITAL CAMERA. THEY ARE IN MY COMPUTER AND CAN BE E-MAILED IF YOU WISH.					
PIPER	LYC	CYLINDER	FAILED	11/12/2001	
PA28140	O320E3D	6531904	TORQUE LINK	CA011121013	
(CAN) - UPON INSPECTION OF AIRCRAFT FOR A REPORTED HARD LANDING TORQUE LINK LUGS FOUND TO HAVE FAILED (UPPER).- UPON REMOVAL IT APPEARS OUTBOARD LUG TO HAVE BEEN CRACKED FOR SOMETIME. INBOARD LUG HAD A SMALL CRACK ALSO ABOUT 20 PERCENT OR AREA. - AREA COVERED BY FAIRING, TO INSPECT FAIRING HAS TO BE REMOVED.- S.L. 760 COVERS INSPECTION OF THIS AREA.OLEO CYLINDER P/N 65319-04 HAS BEEN SUPERCEDED BY					
PIPER	LYC	STRUCTURE	GALLED	08/16/2001	
PA30	IO320B1A	455180	MLG	CA011105018	
(CAN) IT WOULD APPEAR, UPON INVESTIGATION THAT A PIECE OF MATERIAL FROM THE INNER ATTACHMENT (TELEFLEX) BROKE AND BECAME LODGED BETWEEN IT AND THE OUTER PORTION (SLIDE) AND CAUSED GALLING/SCORING WHICH JAMMED THE U/C AND WOULD NOT ALLOW GEAR TO EXTEND. AFTER MUCH EFFORT THE GEAR WAS EXTENDED AND THE AIRCRAFT LANDED WITHOUT INCIDENT.					
PIPER	LYC	DOOR	SEPARATED	12/03/2001	
PA31350	TIO540J2BD	40979	EMERGENCY EXITS	AUS20011283	
(AUS) CABIN EMERGENCY EXIT DOOR SEPARATED FROM AIRCRAFT. INVESTIGATION OF THE LATCH MECHANISM FOUND THAT THE LATCH HAD NOT BEEN FULLY ENGAGING FOR A CONSIDERABLE TIME. LATCHES HAD ONLY BEEN CLOSING APPROXIMATELY 30 DEGREES INSTEAD OF THE FULL 90 DEGREES. CLOSE INSPECTION OF THE HANDLE ASSEMBLY SHOWED THAT IT WAS BENT IN THE AREA WHERE THE VERTICAL TUBE IS WELDED TO THE BELL CRANK CROSSTUBE RESULTING IN LIMITED TRAVEL OF THE DOOR LATCHES.					
PIPER		MOUNT	CRACKED	12/05/2001	1877
PA32R301		3872902	ENGINE	2001FA0000605	
ENGINE TRUSS WELD ASSY FOUND CRACKED AT STEERING ARM ATTACH POINT					

PIPER	LYC	SPAR	FAILED	10/18/2001	
PA34200	IO360C1E6	9556300	VERICAL STAB	CA011102002	
(CAN) FAILURE OF RIVETS SECURING LOWER 4 INCHES OF SPAR FLANGES TO FITTING P/N 63501-00. FOUR RIVETS HAD FAILED ON L/H SIDE AND ONE RIVET FAILED ON R/H SIDE.					
PIPER	CONT	BOLT	BROKEN	12/14/2001	
PA34200T	TSIO360E	553266	HORIZONTAL	AUS20011341	
(AUS) STABILISER ATTACHMENT FITTING BOLTS BENT (2OFF) AND BROKEN(2OFF). INVESTIGATION FOUND THAT THE BOLTS WERE THE INCORRECT TYPE. THE PART NUMBER OF THE INCORRECT BOLTS WAS PNO NAS425-3-7.UNAPPROVED PART. PERSONNEL/MAINTENANCE ERROR.					
PIPER	LYC	CONTROL	SEPARATED	10/29/2001	
PA60600	IO540K1J5	600035549	MIXTURE	CA011108007	
(CAN) DURING ANNUAL INSPECTION THE ENGINES WERE BEING REMOVED FOR REPLACEMENT. DURING INSPECTION OF THE ENGINE CONTROLS, BOTH THE LT MIXTURE CONTROL CABLE P/N 600035-549 AND RIGHT HAND MIXTURE CONTROL CABLE P/N 600035-547 WERE FOUND TO BE SEPARATED AT THE SWAGED END. THE LT CABLE HAD A TIME OF 2125.8 HOURS SINCE NEW. TIME ON R/H CABLE UNKNOWN. THE CABLES WERE REPLACED WITH SERVICEABLE UNITS.					
REIMS	PWA	ACTUATOR	CONTAMINATED	12/06/2001	
F406	PT6A112		ELEVATOR TAB	AUS20011309	
(AUS) ELEVATOR TRIM TAB ACTUATORS LUBRICATED WITH THE INCORRECT GREASE. ACTUATORS FREEZING IN FLIGHT. MAINTENANCE MANUAL SPECIFIES "TRIBOLUBE" ONLY. PERSONNEL/MAINTENANCE ERROR. UNAPPROVED					
RK WELL		LINE	CRACKED	11/26/2001	4655
NA26565		465588001045	HYD SYSTEM	2001112329	
MAINTENANCE PERSONNEL NOTICED FLUID LEAKAGE FROM BELLY PANEL AFT OF LANDING GEAR FOLLOWING PILOT'S COMPLETION OF "SPOILER AUTO EXTEND" PREFLIGHT CHECK BY FLIGHT CREW. VISUAL INSPECTION DETERMINED SPOILER AUTO EXTEND LINE ASSEMBLY TO BE LEAKING PAST B-NUT AND SLEEVE WHERE IT CONNECTS TO SPOILER CONTROL DUMP VALVE. DEFECT WAS CRACK AT LIP OF DOUBLE FLARE. MOST PROBABLE CAUSE IS SUDDEN SHOCK FROM AUTO EXTEND ACTIONS AT LANDING AND DURING PREFLIGHT CHECKS.					
ROBSIN	LYC	BLADE	CRACKED	11/23/2001	
R22MARINER	O320B2C		MAIN ROTOR	AUS20011330	
(AUS) MAIN ROTOR BLADES SUSPECT CRACKED.					
ROBSIN		WHEEL	CORRODED	12/12/2001	190
R44		D1742	CENTER HUB	IVSA077371	
PAINT ON FAN WHEEL LOOSE AND FLAKING OFF DUE TO POOR ADHESION, PROBABLY CAUSED BY IMPROPER PREPARATION, ALLOWING PREMATURE CORROSION.					
ROBSIN		PUMP	LEAKING	01/14/2002	261
R44		D5001	HYD SYSTEM	2002FA0000077	261
HYDRAULIC PUMP LEAKING BETWEEN THE MATING SURFACES OF THE PUMP.					
ROBSIN	LYC	HUB	CRACKED	08/15/2001	
R44	O540F1B5	C1861	COOLER FAN	CA011102005	
(CAN) PART C186-1 FOUND CRACKED WHILE REPLACING MICROSWITCH V3-1001. THE FAN WAS REMOVED AND THE HUB WAS FOUND CRACKED.THE FAN SHAFT ASSEMBLY C007-5 WAS CORRODED. THE FAN TORQUE WAS FOUND ACCEPTABLE (450-550 FT LBS).PIECE C186-1 WAS REPLACED AND THE FAN SHAFT C007-5 WAS RETURNED TO ROBINSON FOR OVERHAUL. THE SECOND PROBLEM WAS REPORTED ON 3 OTHER HELICOPTERS IN THE LAST 2/3 YEARS. THE THIRD ONE WAS FOUND CRACK FREE BUT CORRODED.					
SKRSKY		BUSHING	WORN	10/31/2001	
S61N			BATTERY	ERAA077285	
BUSHINGS WORN.					
SKRSKY	PWA	SERVO VALVE	FAILED	05/29/2001	
S64E	JFTD12A4A	1565202535	MAIN ROTOR	CA011012008	
(CAN) A/C IN LOGGING OPS NEAR SAYWARD, BC. AS PILOT MADE HIS APPROACH TO LOG LDG& INITIATED FLARE TO SLOW DOWN HIS APPROACH, A/C'S NOSE ABRUPTLY PITCHED UP & CONTINUED TO DO SO EVEN WITH FULL FWD CYCLIC APPLIED. A/C FINALLY LEVELED OFF THEN BEGAN VIOLENTLY PITCHING UP & DOWN. CNTL OF A/C REGAINED BY SHUTTING OFF 1ST STAGE HYDRAULIC SYS. WITH SYS REMAINING TURNED OFF PILOT SET DOWN LOAD OF LOGS & THEN RETURNED TO SERVICE LANDING MAKING UNEVENTFUL LDG. AFTER LDG PILOT CARRIED OUT FULL HYDRAULIC SERVO CHECK & FOUND CYCLIC COULD NOT BE MOVED FWD WITH 1ST STAGE HYDRAULIC SYS ON. MAIN ROTOR TANDEM SERVO INST IN FOR & AFT POS WAS REPL & A/C RT-SRV.					
SKRSKY	ALLSN	GOVERNOR	MALFUNCTIONED	12/26/2001	11057
S76	250C30	23065125	ENGINE	AC2A077543	
GOVERNOR VERY SENSITIVE, COULD NOT MATCH TORQUES & SHAFT IS RACHETY. REPLACED WITH SERVICEABLE PART.					
SKRSKY	ALLSN	TURBINE	CORRODED	08/07/2001	1110
S76	250C40B	23053299	ENGINE	2002FA0000073	
TURBINE CAME IN FOR SHOP VISIT FOR LOW POWER. BEGAN DISASSEMBLY OF TURBINE, REMOVED OUTER COMBUSTION CASE AND FOUND SULFIDATION ON 1ST STAGE WHEEL. HAD ONE BLADE MISSING AND SEVERAL BROKEN BLADES. THIS TURBINE HAD A ROLLS ROYCE LINER. HAVE WHEELS TESTED FOR PROPER COATING. (M)					
SKRSKY		BLADE	MISMANUFACTURE	12/04/2001	12101
S76A		7615009100048A	MAIN ROTOR	HEEA077388	
UNABLE TO INSTALL TIP CAPS - TWO DIFFERENT TIP CAPS. TIP CAP BLOCK HOLES APPEAR TO BE DRILLED 1/8 INCH TOO FAR FORWARDWHEN AFT SCREWS INSERTED.					
SNIAS	TMECA	BLADE	CRACKED	10/29/2001	
AS350B	ARRIEL1B	350A11001007	MAIN ROTOR	CA011108001	
(CAN) DURING INSPECTION A CRACK WAS FOUND ON THE LOWER SURFACE OF THE BLADE AT STN. 1003. CRACK LENGTH WAS APPROXIMATELY 155.52 MM STARTING 111.46 FROM THE LEADING EDGE TRAVELLING CORDWISE TO 33.02 MM FROM THE TRAILING EDGE.					
SNIAS	TMECA	CARBON SEAL	CRACKED	10/15/2001	
AS350B	ARRIEL1B	770441	TAIL ROTOR GB	CA011029011	
(CAN) DURING A GROUND RUN ON OIL LEAK WAS DETECTED FROM THE TAIL ROTOR GEAR BOX. AIRCRAFT WAS SHUT DOWN LEAK INVESTIGATED. OIL LEAK FROM INPUT MAG SEAL. SEAL AND HOUSING REMOVED. THE STATIONARY PORTION OF SEAL FOUND TO HAVE MULTIPLE CRACKS. MAG SEAL WAS PREVIOUSLY REMOVED DUE TO SMALL LEAK. SEAL WAS "RE-SEATED" AND REINSTALLED. POSSIBLE CAUSE WAS INCORRECT INSTALLATION OF SEAL.A NEW CARBON MAG SEAL WAS INSTALLED. AIRCRAFT WAS GROUND RUN AND NO FURTHER LEAK PRESENT.					
SNIAS	TMECA	LEVER	CRACKED	10/25/2001	
AS350B	ARRIEL1B	350A33105803	TAIL ROTOR	CA011029017	
(CAN) THE TAIL ROTOR CONTROL LEVER MAYBE THE SAME AIRFRAME TIME BUT WE ARE NOT 100 PERCENT SURE. THE TAIL ROTOR CONTROL LEVER HAD A DEFECT OF WEAR ON INSIDE EAR. UPON REMOVAL MAINTENANCE ENGINEER FOUND CRACKS IN THE WEBBING, TOP SIDE AT T/SPIDER ATTACHMENT POINT.					

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SNIAS	TMECA	SKIN	CRACKED	05/14/2001	
AS350BA	ARRIEL1B	355A12004008	T/R BLADE	CA011029020	

(CAN) 131 MM CRACK ORIGINATING FROM THE RIVET HOLE FOR THE TRAILING EDGE TAB ON BOTH THE UPPER AND LOWER SURFACE.SDR NO. 20010112018 AND 2019 ADDRESSES THIS SAME DEFECT.SINCE DISCOVERY OF THIS DEFECT EUROCOPTER FRANCE HAS ISSUED INFO TELEX00000035 REQUIRING A BEFORE FLIGHT/BETWEEN FLIGHT /AFTER FLIGHT AN 500 HOUR/24 MONTH INSPECTION OF THIS AREA FOR CRACKING.

SNIAS	TMECA	SKIN	CRACKED	10/05/2001	
AS350BA	ARRIEL1B	350A23002021	TAILBOOM	CA011029016	

(CAN) A 6 INCH LONG CRACK FOUND ON TAILBOOM FWD UPPER SKIN UNDER N5 BEARING MOUNT SUPPORT AT BOOM STA A868. TAILBOOM INST IN EUROCOPTER APPRD AS350/355 TAILBOM REPAIR FIXTURE FOR REPL OF UPPER SKIN&FOUND N5SUPPORT HAD BADLY MISALIGN TO FIXTURE: N5 BEARING MOUNT SUPPORT HAD BEEN PREV REPL IN FIELD BY OPERATOR PER EUROCOPTER AS350 REPAIR MANUAL CHAPT 53.10.40.773.A 2ND TAILBOOMN FOUND WITH SIMILAR DEFECT, ALSO N 5 BEARING MOUNT SUPPORT HAD BADLY MISALIGN TO FIXTURE: N5 BEARINGMOUNT SUPPORT HAD BEEN PREV REPL IN FIELD.WE FEEL THAT MAIN REASON SKIN CRACKED MISALIGNMENT OF #5 BEARING MOUNT WHICH REPL IN FIELD W/O USE OF FIXTURE:

ZLIN	LYC	SUPPORT	BROKEN	12/06/2001	1135
Z242L	AEIO360A1B6	L2426670132000	FUEL SERVO	2001FA0000608	

EYE SCREW, IS A SUPPORT STRUT WHICH ATTACHES TO THE EXHUST STACK AT ONE END AND THE FUEL SERVO TO ENGINE SUMP ATTACHMENT STUDS AT THE OTHER END. THE STRUT FELL BETWEEN THE THROTTLE ARM AND SUMP. THIS PREVENTED THE ENGINE FROM BEING ABLE TOREDUCE POWER BELOW 1500 RPM. CONDITION REPORTED BY PILOT AND FOUND BY MECHANIC. SUBMITTER REPLACED PART AND SECURED STRUT AT AN ADDITIONAL POINT IN CASE THE REPLACEMANT PART BREAKS AGAIN. THIS ADJUSTMENT WOULD PREVENT THE STRUT FROM FALLING INTO THE CONTROL LINKAGE IF THE PROBLEM REOCCURES.

ZLIN	LYC	MOUNT	CRACKED	10/05/2001	
Z242L	AEIO360A1B6	L24263100000	RT ENGINE	CA011031025	

(CAN) DURING A 100 HOUR INSPECTION A CRACK WAS FOUND ON THE UPPER RT MOUNT WEB. THE MOUNT WAS REMOVED FOR FURTHER INSPECTION AND IT WAS NOTICED THAT THE CRACK WAS ABOUT 1 INCH IN LENGTH. MAINTENANCE HAS BEEN INSTRUCTED TO PAY SPECIAL ATTENTION TO THIS AREA DURING 50 AND 100 HOUR INSPECTIONS FOR ANY SIGN OF STRESS OR TINY CRACKS.NOTE: ILLUSTRATION ATTACHED.

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DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		OPER. Control No.		8. Comments (Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.)	DISTRICT OFFICE	OPERATOR DESIGNATOR
<b>MALFUNCTION OR DEFECT REPORT</b>		ATA Code				
		1. A/C Reg. No. N-				
Enter pertinent data	MANUFACTURER	MODEL/SERIES	SERIAL NUMBER			
2. AIRCRAFT						
3. POWERPLANT						
4. PROPELLER						
5. SPECIFIC PART (of component) CAUSING TROUBLE						
Part Name	MFG. Model or Part No.	Serial No.	Part/Defect Location.			
6. APPLIANCE/COMPONENT (Assembly that includes part)						
Comp/App'l Name	Manufacturer	Model or Part No.	Serial Number			
Part TT	Part TSO	Part Condition	7. Date Sub.	Optional Information:		
				Check a box below, if this report is related to an aircraft		
				<input type="checkbox"/> Accident; Date _____ <input type="checkbox"/> Incident; Date _____		
				REP. STA.	OPER.	
				MECH.	AIR TAXI	
				MFG.	FAA	
				COMPUTER	OTHER	
				SUBMITTED BY: _____		
				TELEPHONE NUMBER: ( ) _____		

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